

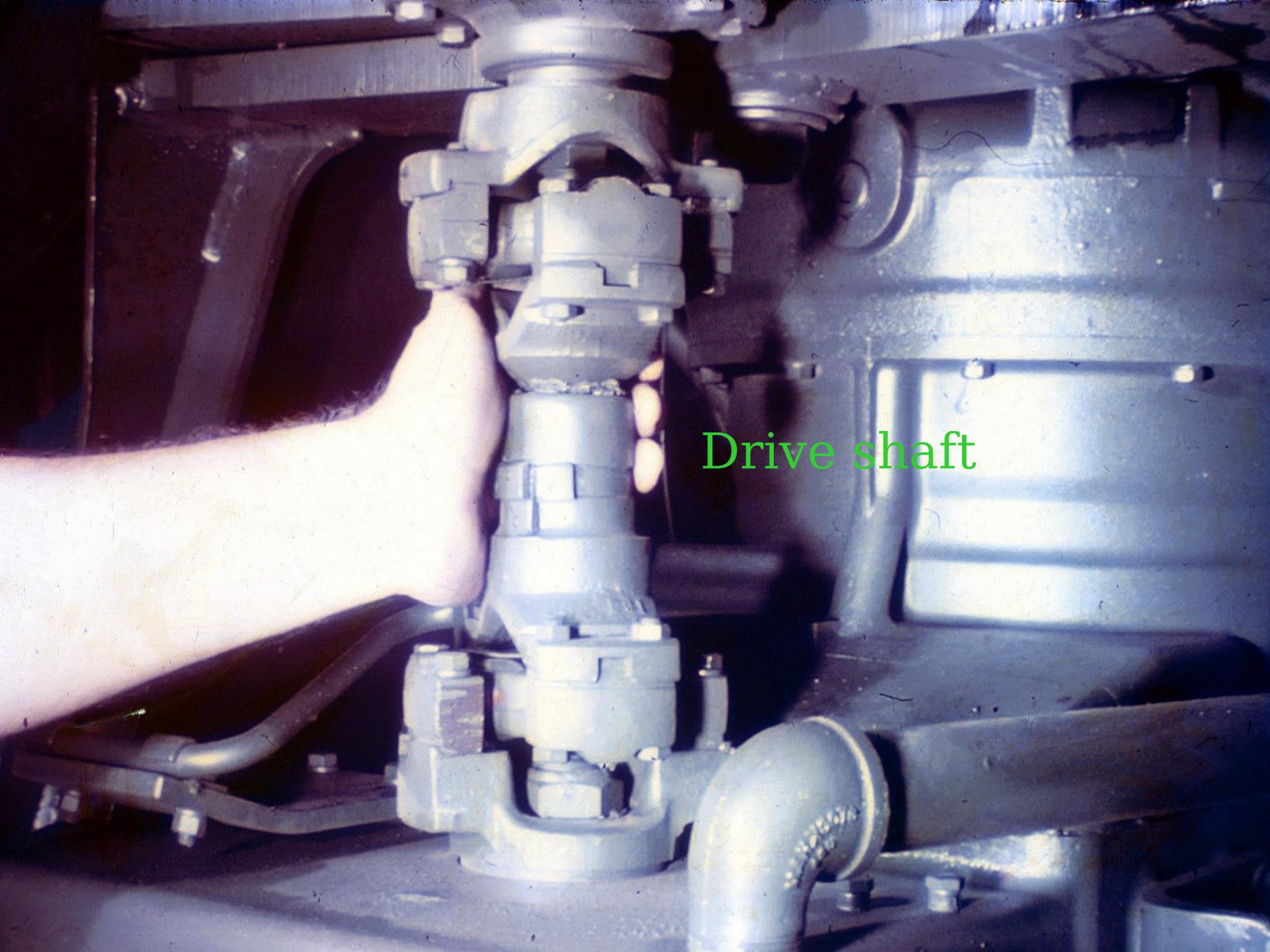
ENABLING LEARNING OBJECTIVE “B”

ACTION: Identify differential and axle components and their functions.

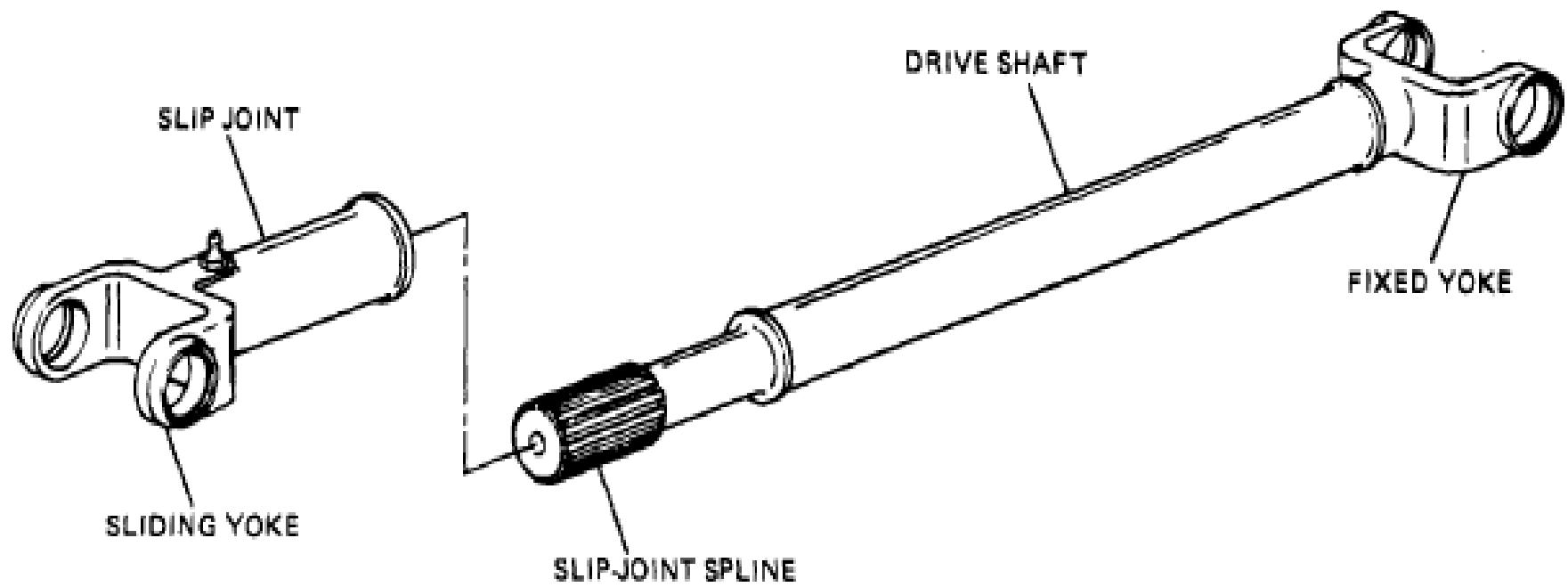
CONDITIONS: In a classroom and at a training site, given TM 5-3805-248-14&P2, TM 5-3805-262-20, TM 5-3805-262-34, TM 9-8000, a student guide, instruction on identifying differential and axle components and their functions, items of construction equipment, training aids, a general mechanics tool kit, special tools, TMDE, PPE, and a pen, and pencil.

STANDARDS: Identify differential and axle components and their functions

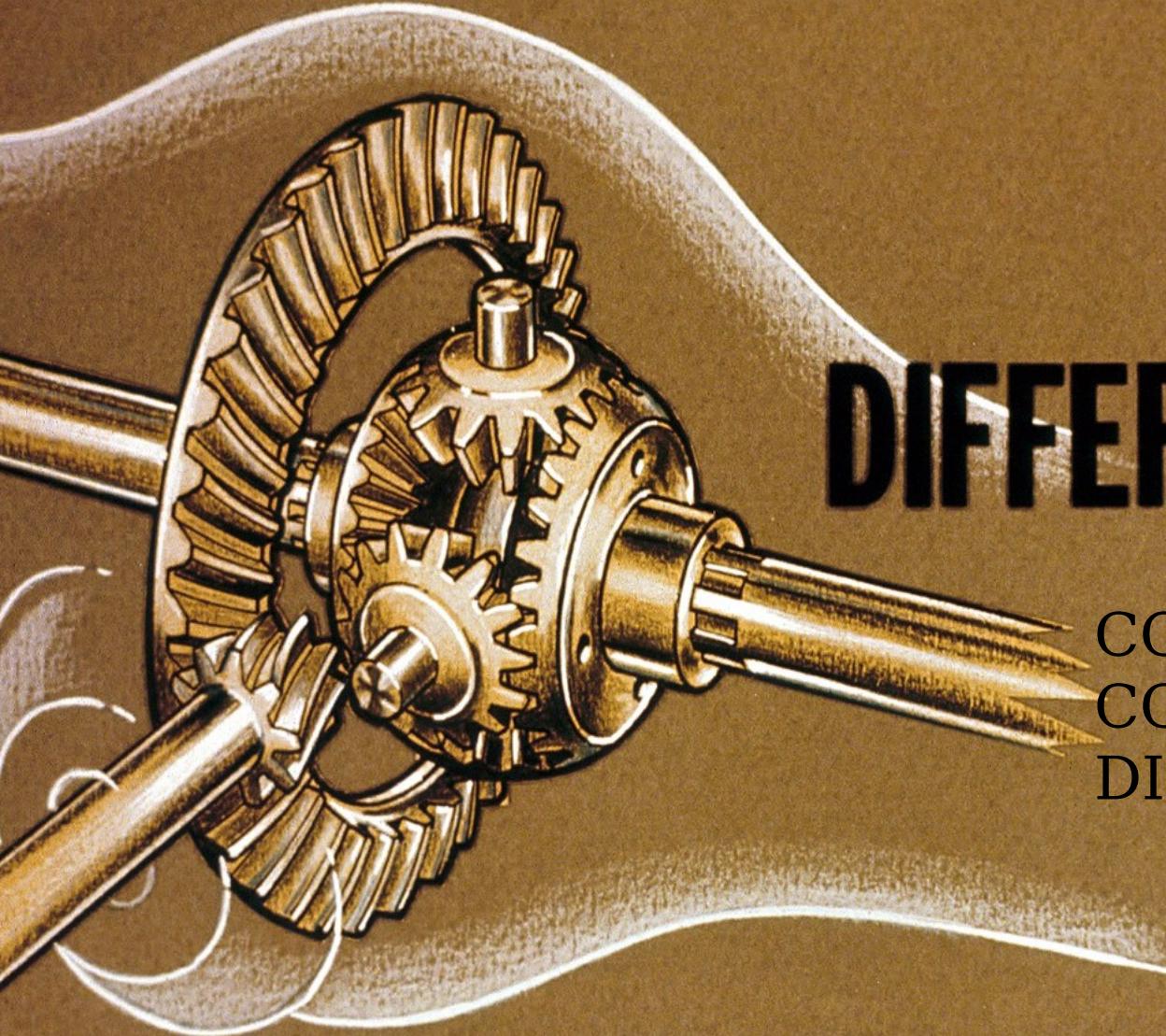
IAW TM 5-3805-248-14&P2, TM 5-3805-262-20, TM 5-3805-262-34, and TM 9-8000 without damage to equipment or injury to personnel.



Drive shaft





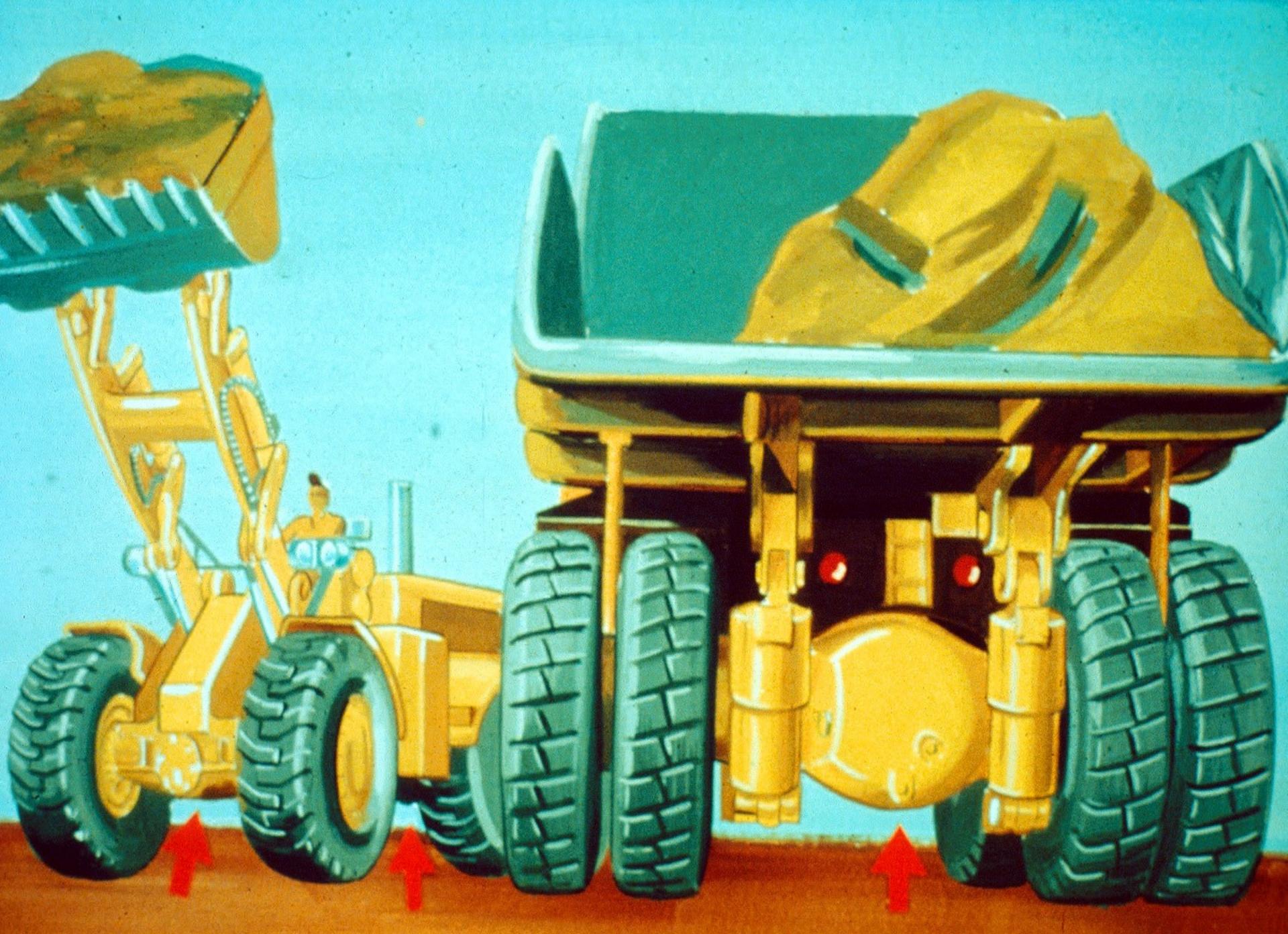


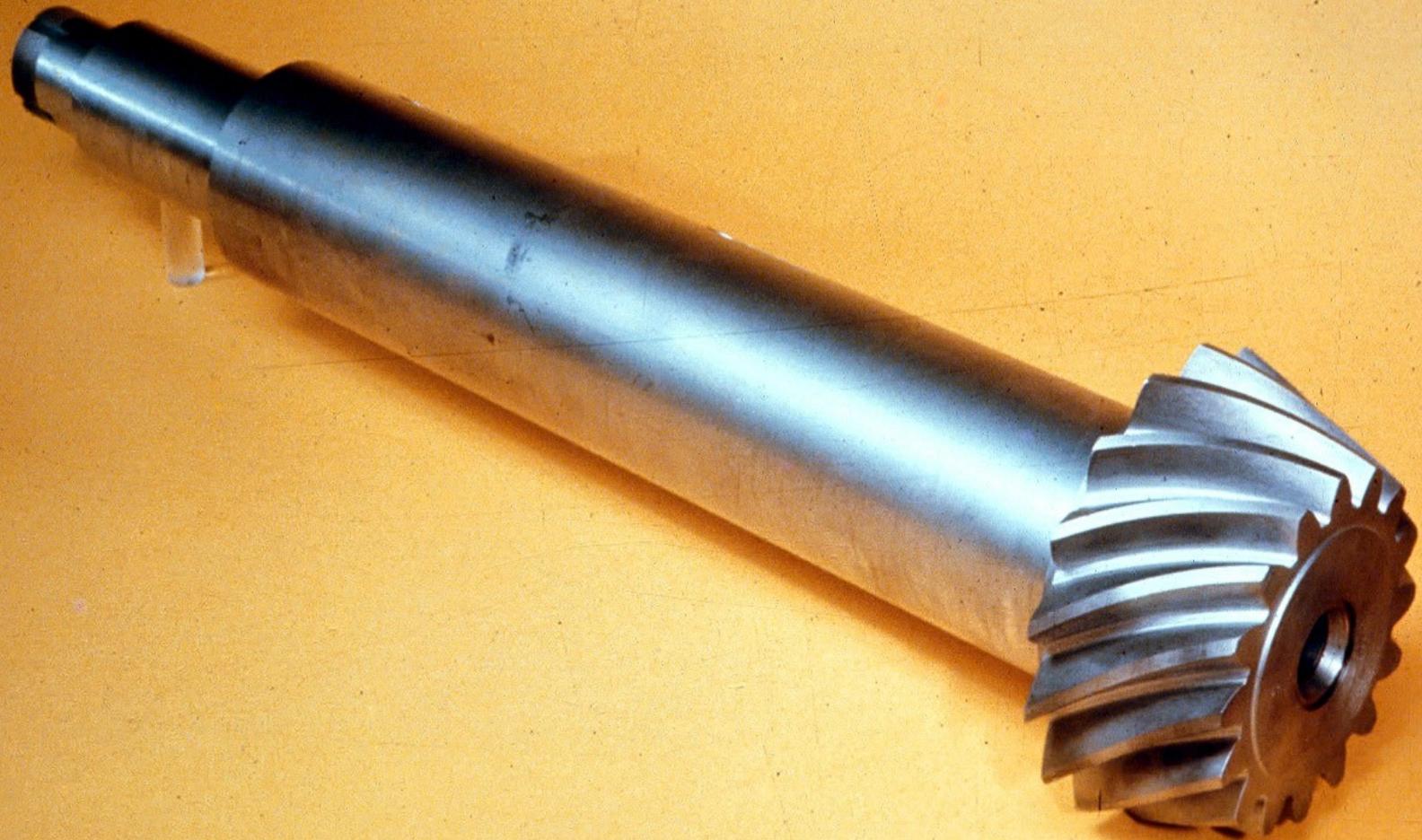
DIFFERENTIALS

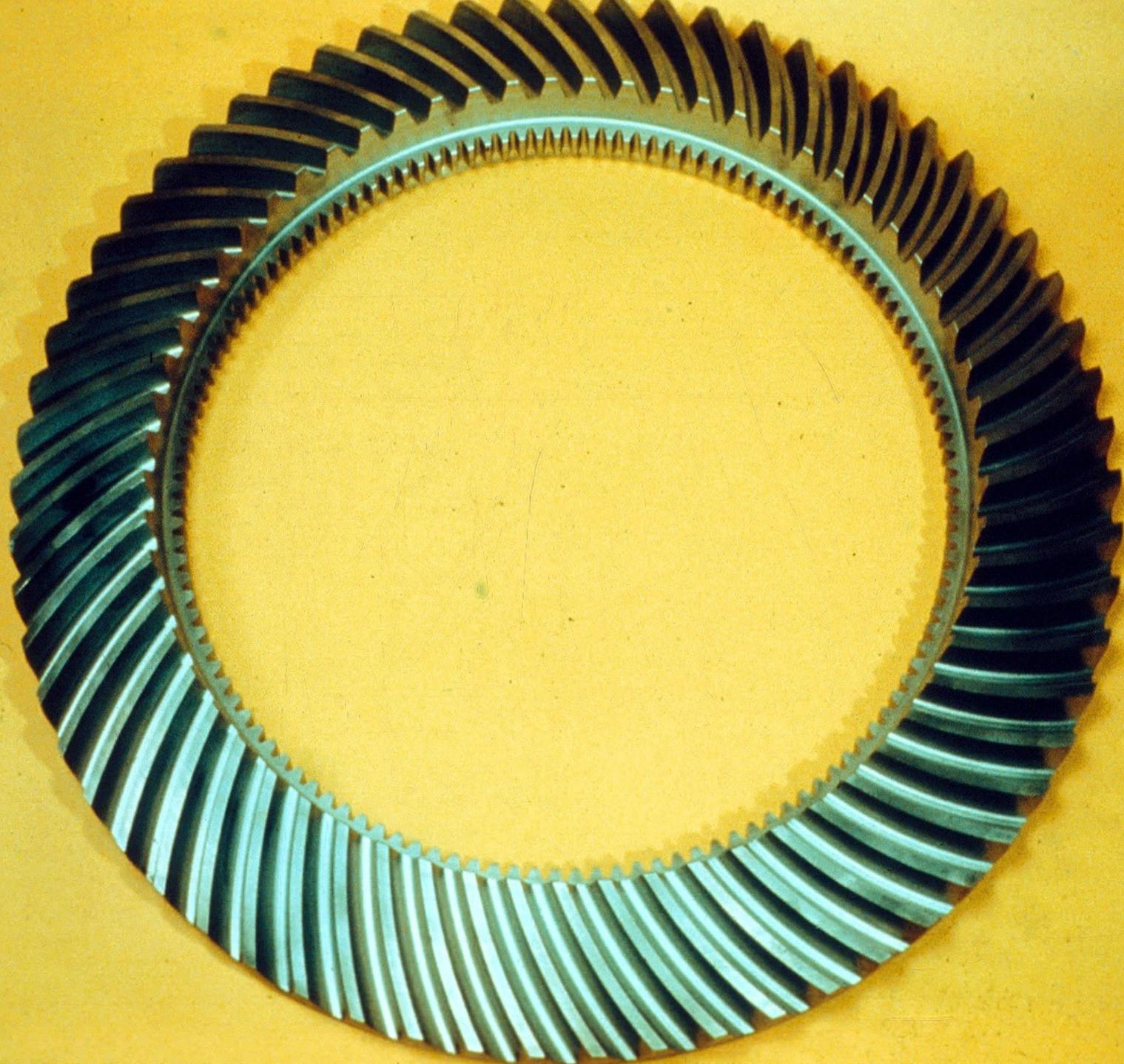
CONVENTIONAL NO SIDE SLIP
CONVENTIONAL WITH SIDE SLIP
DIFFERENTIAL LOCK

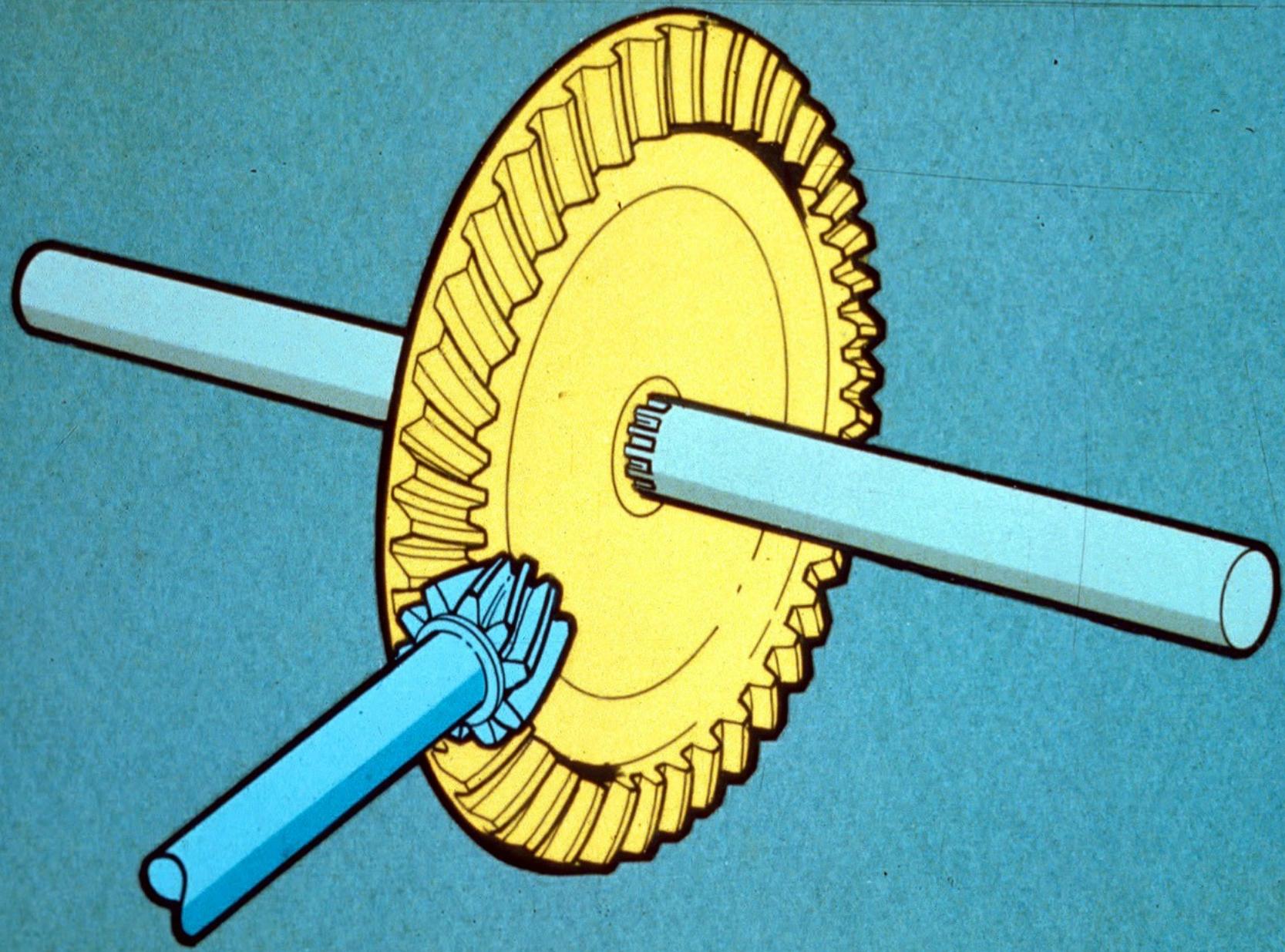
FUNCTIONS OF DIFFERENTIAL

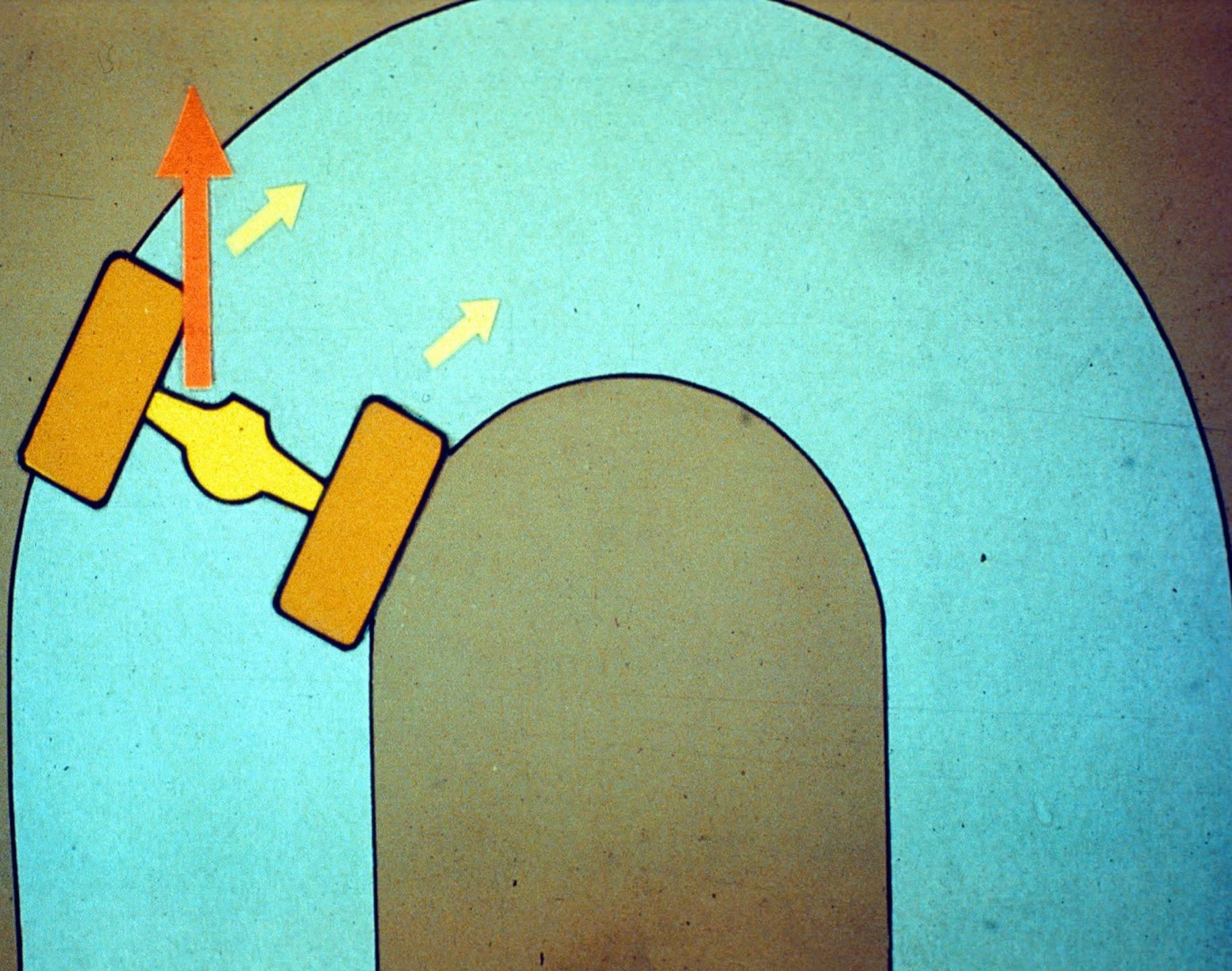
- TRANSMITS TORQUE
- PROVIDES GEAR REDUCTION
- PERMITS INDEPENDENT WHEEL SPEED

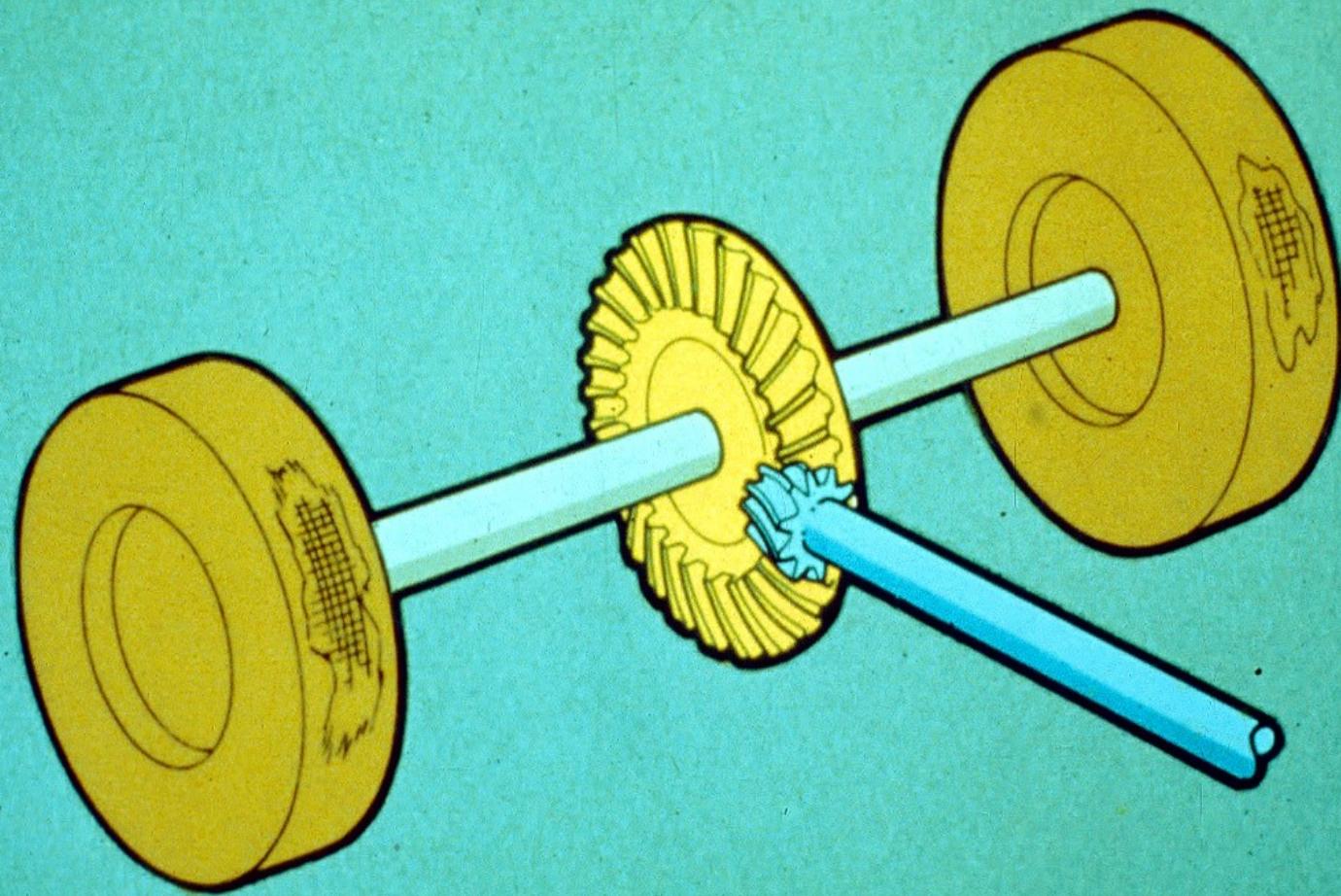


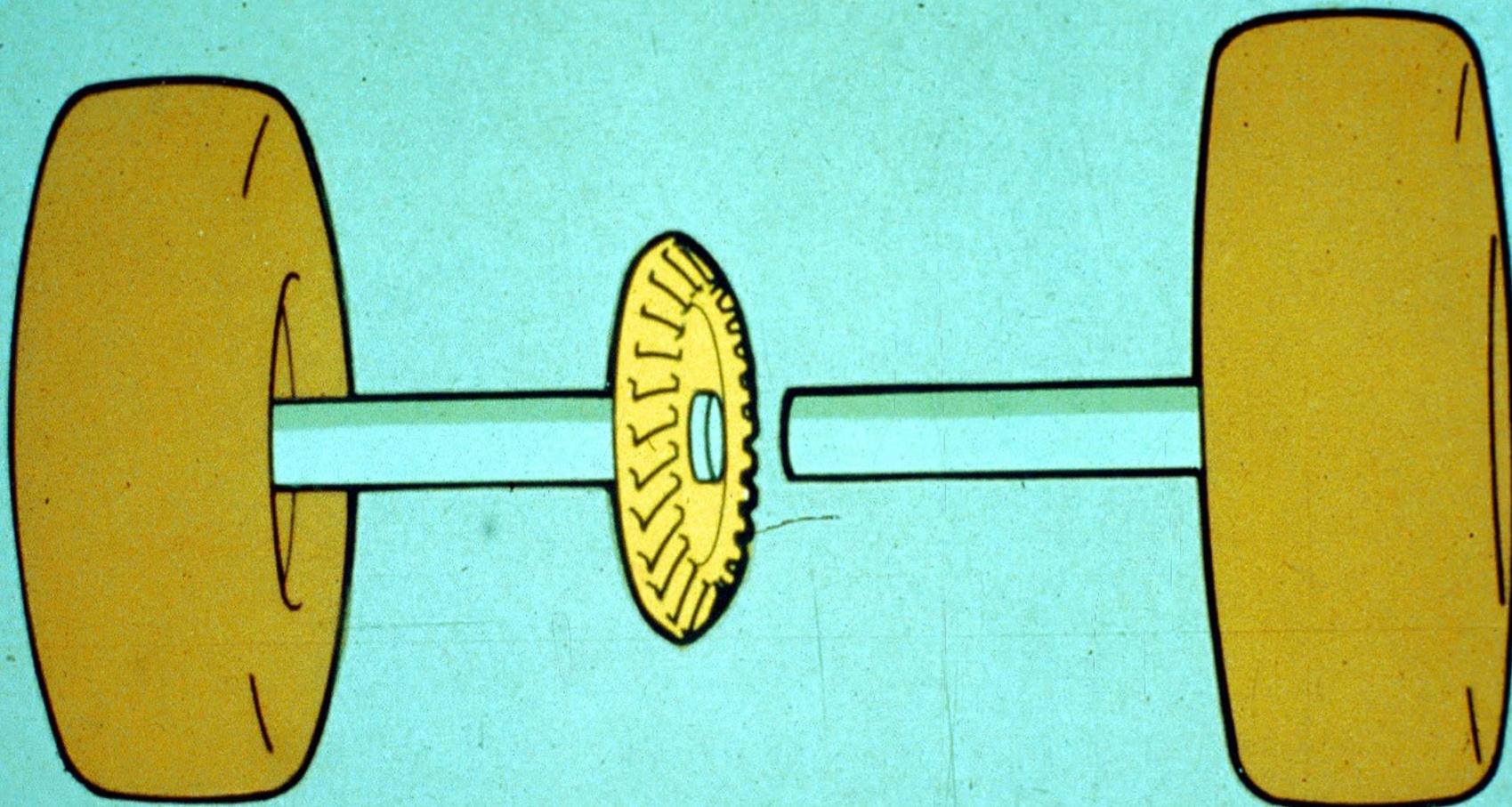


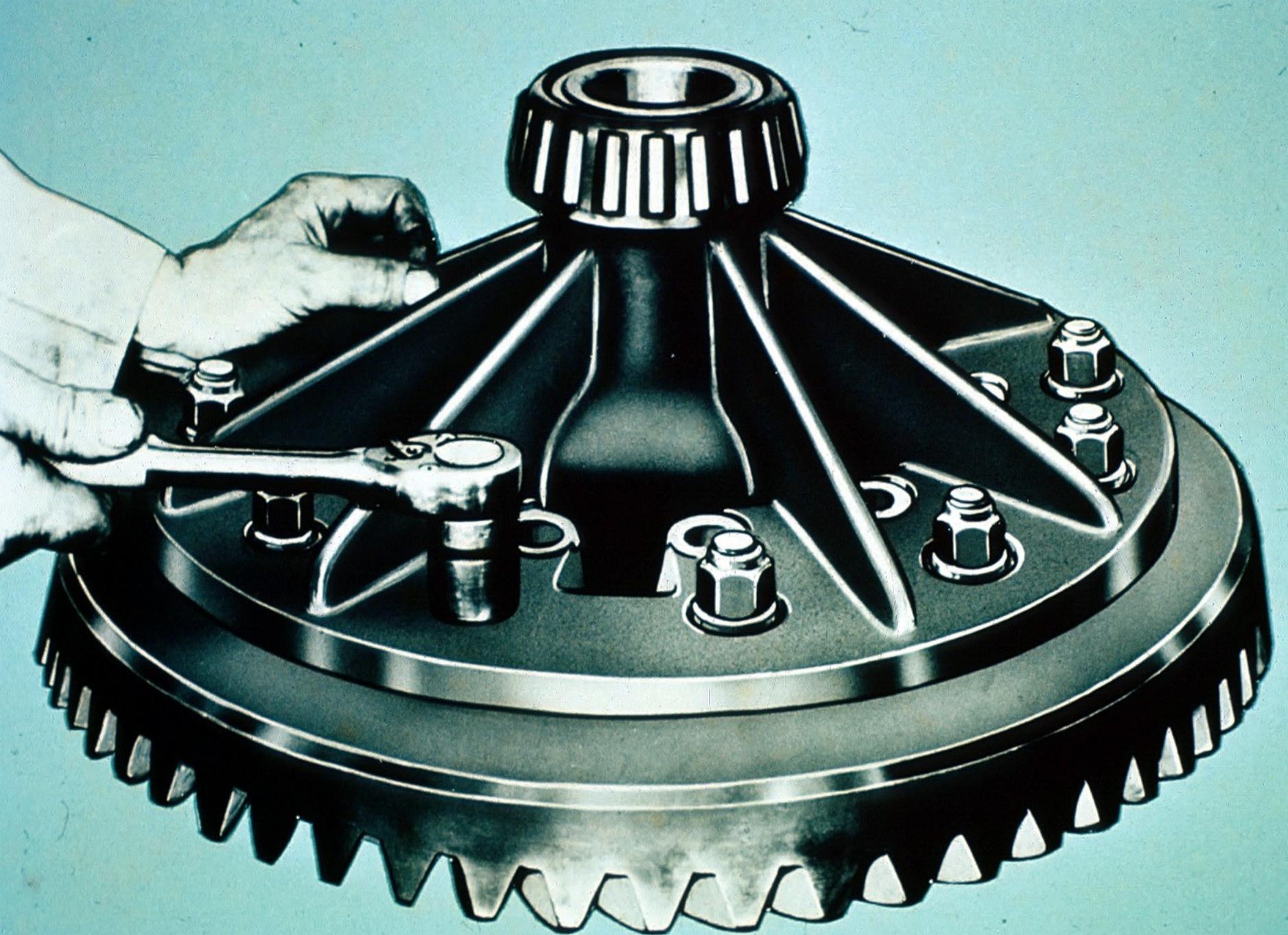


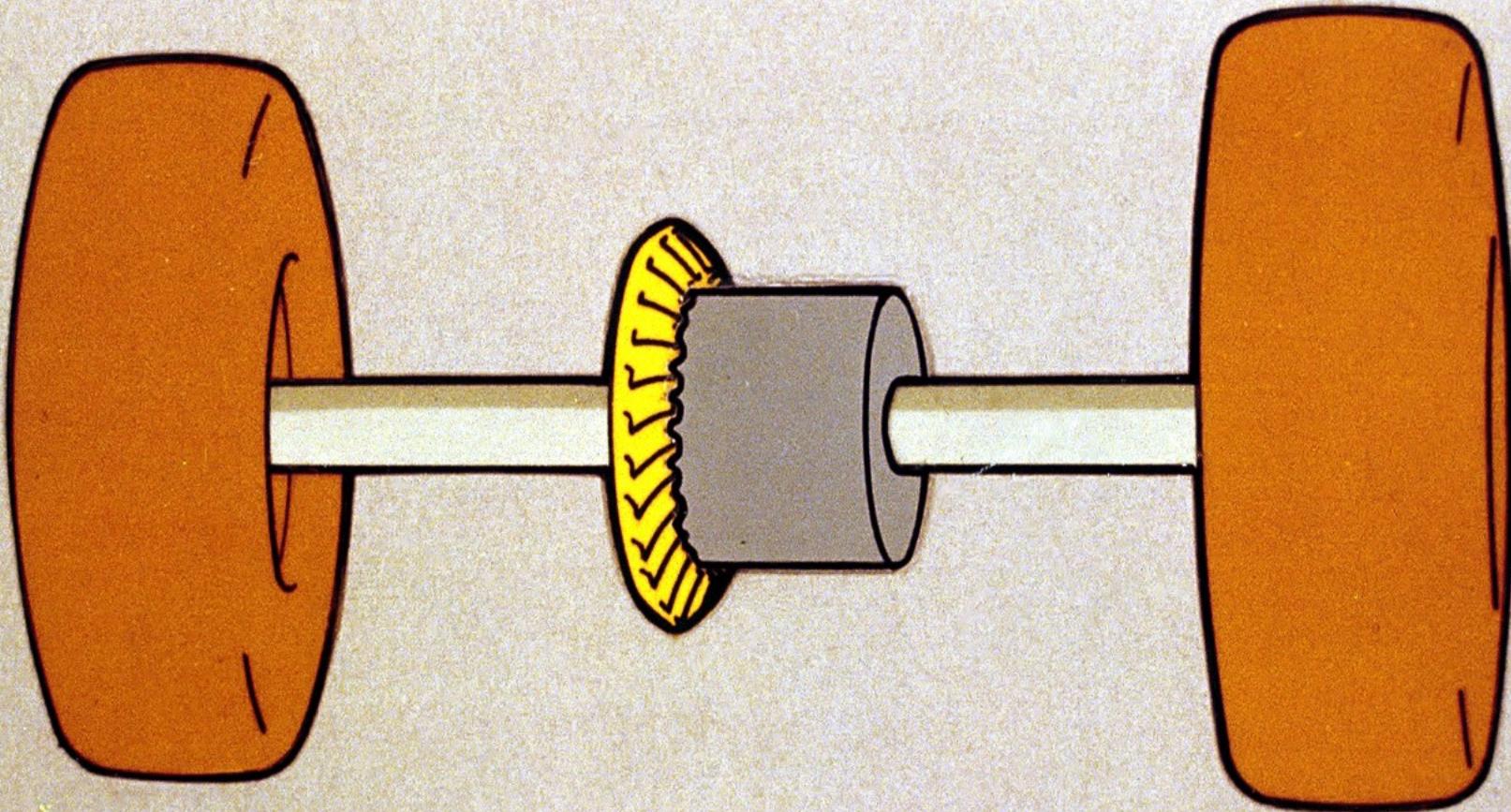


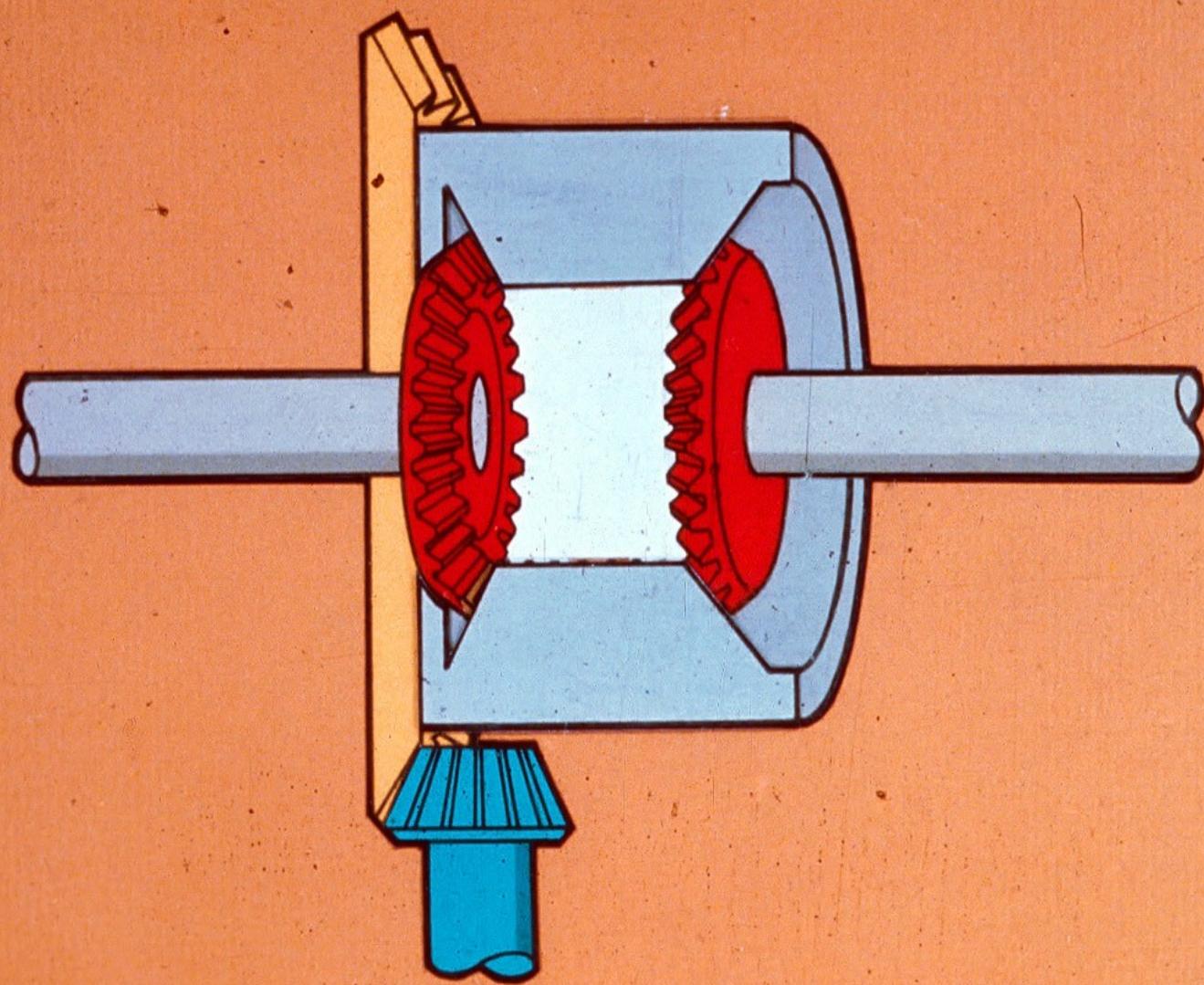


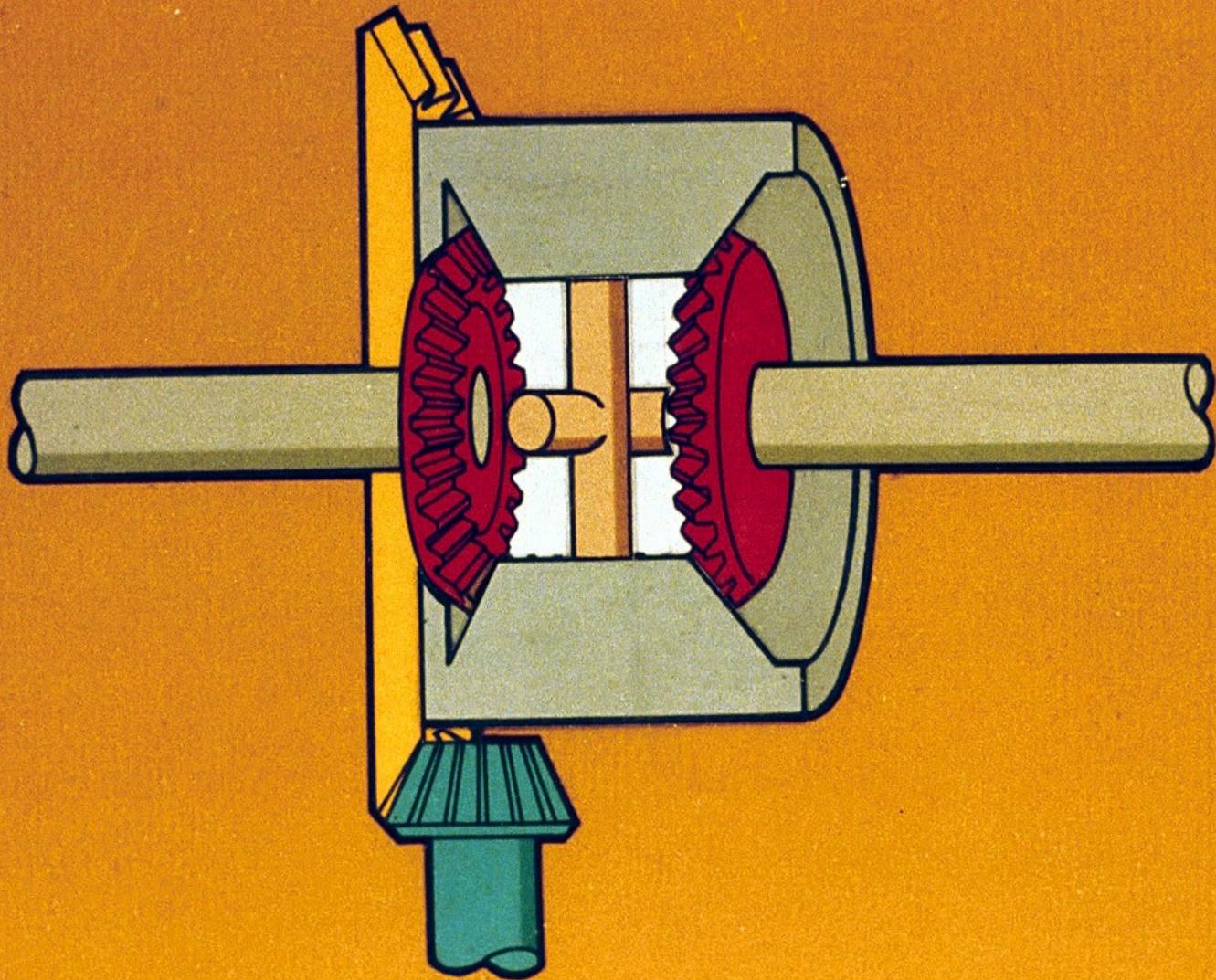


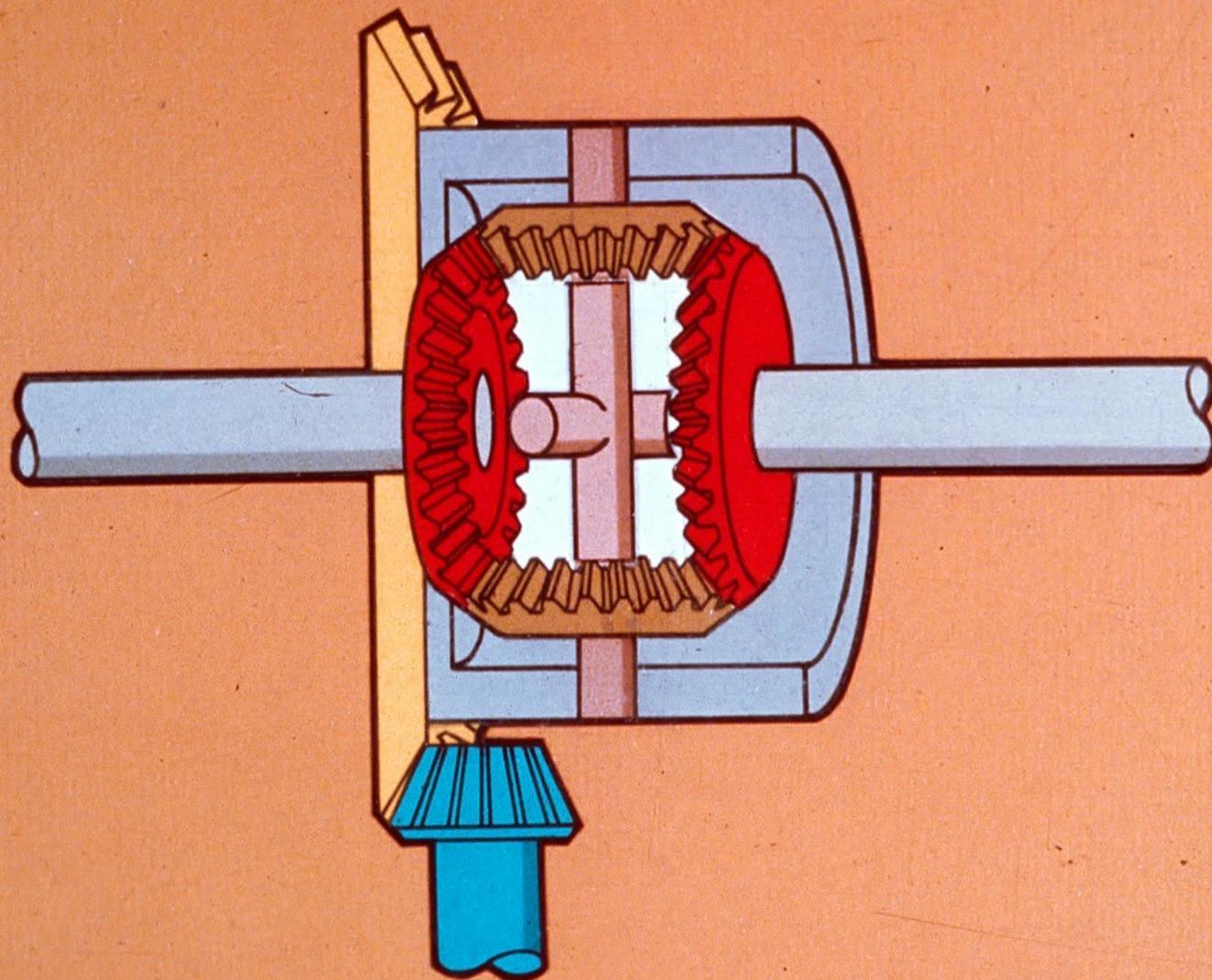










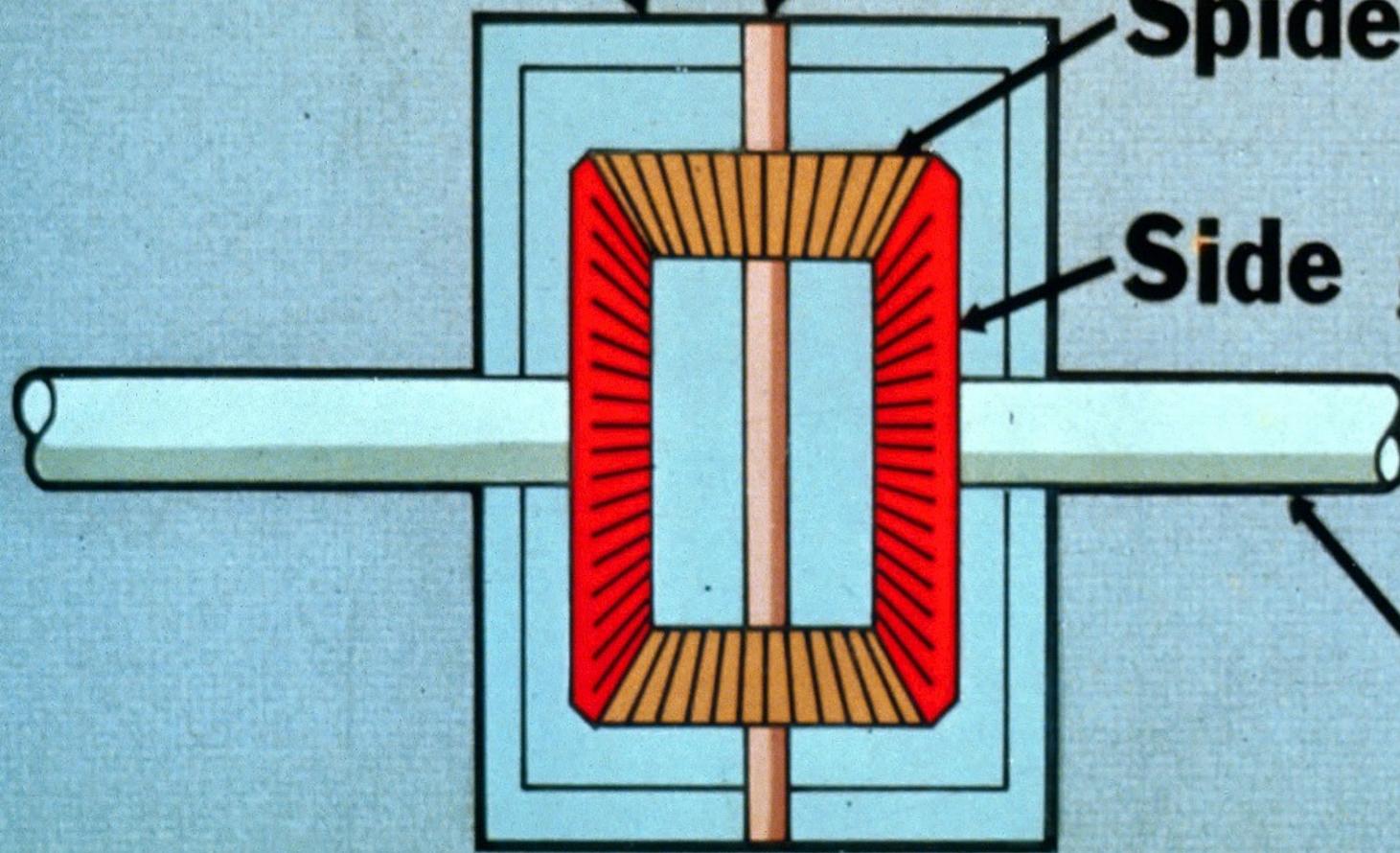


Housing

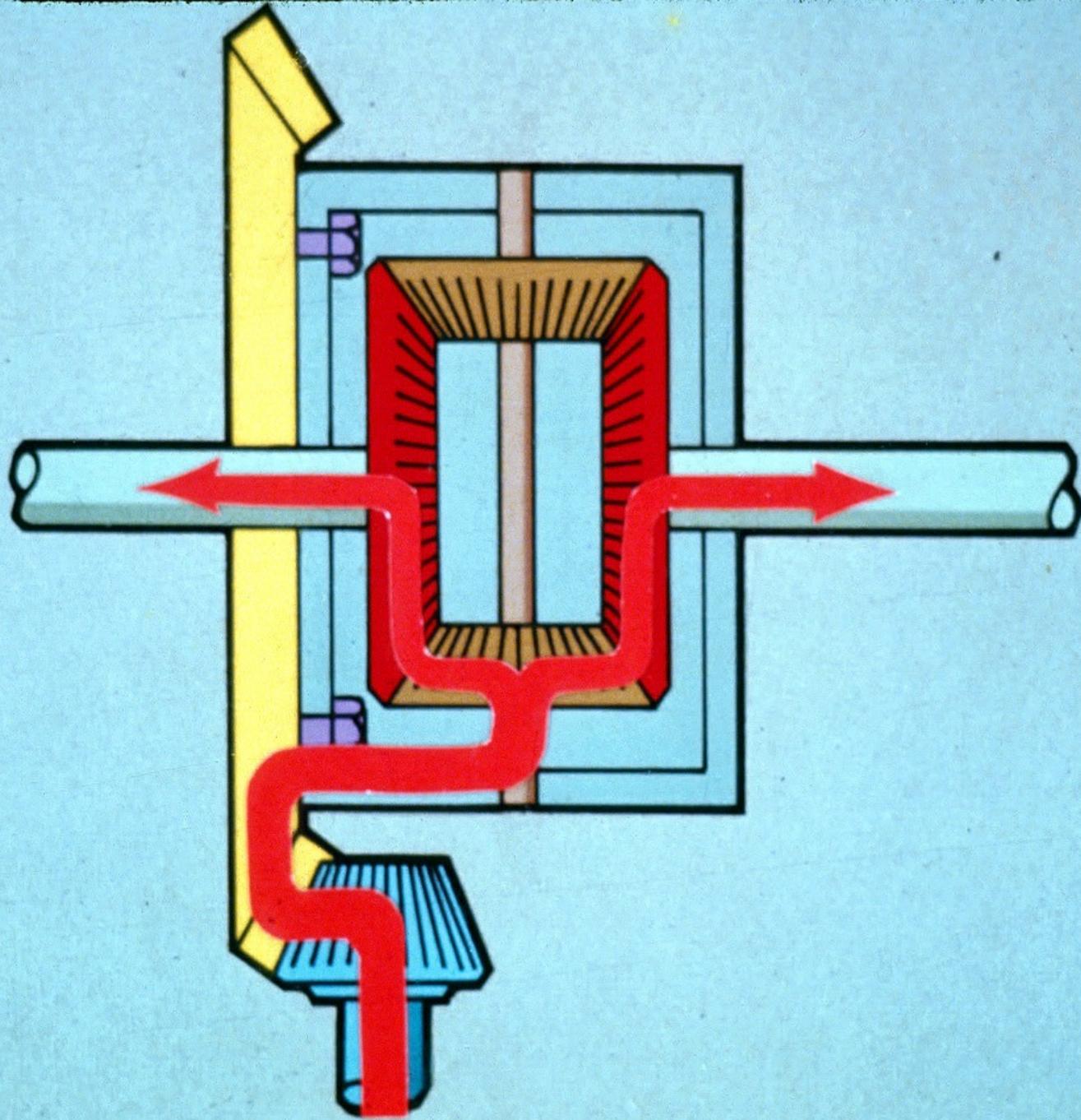
Spider

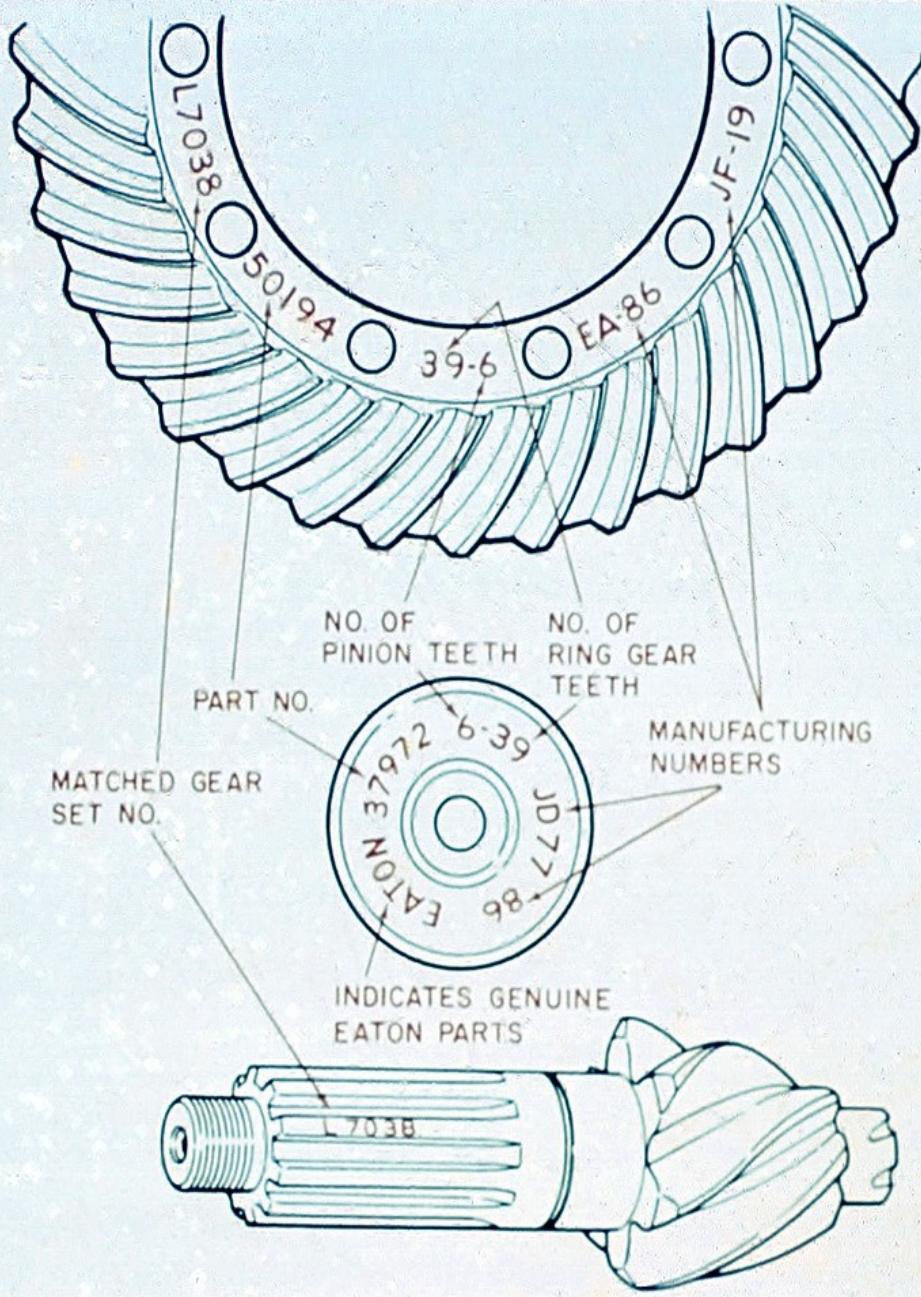
Spider gears

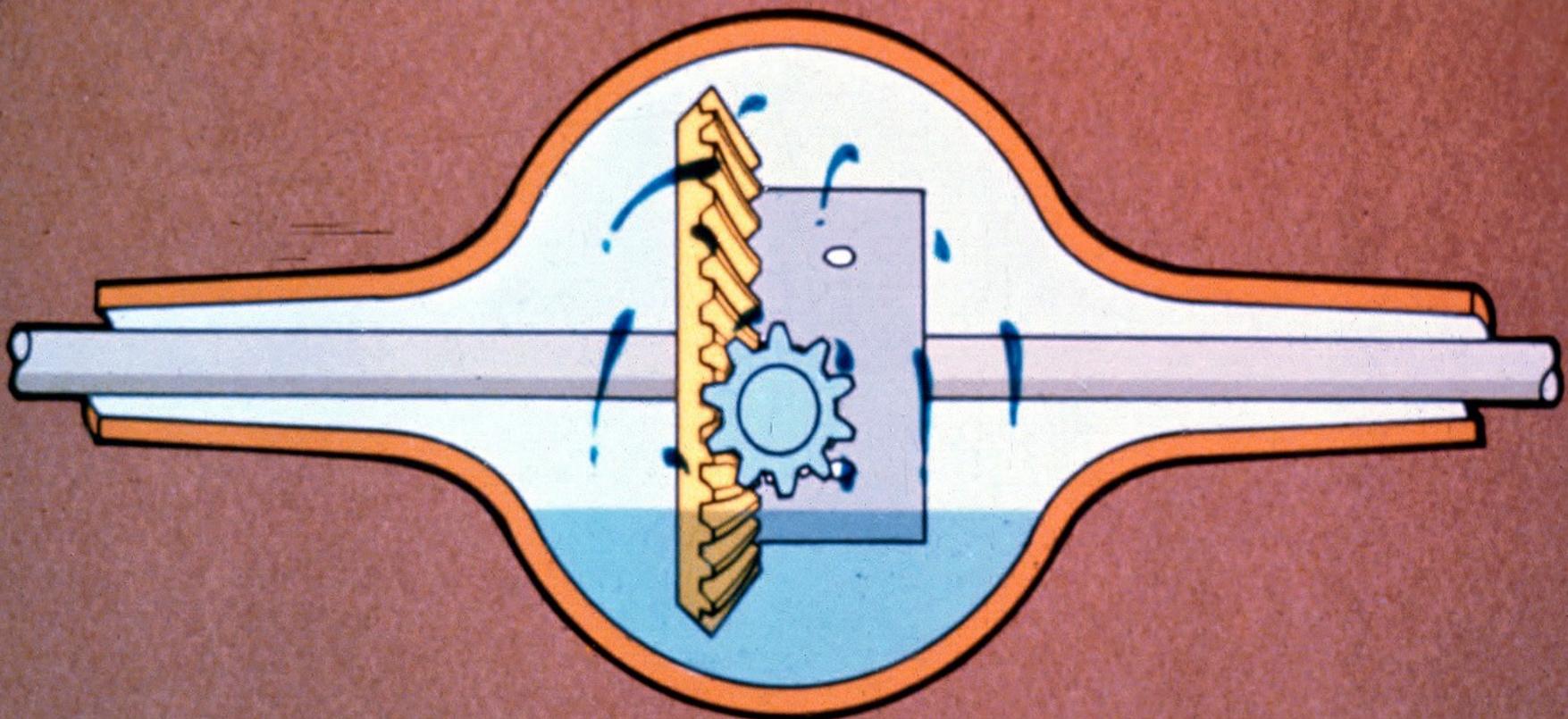
Side gears

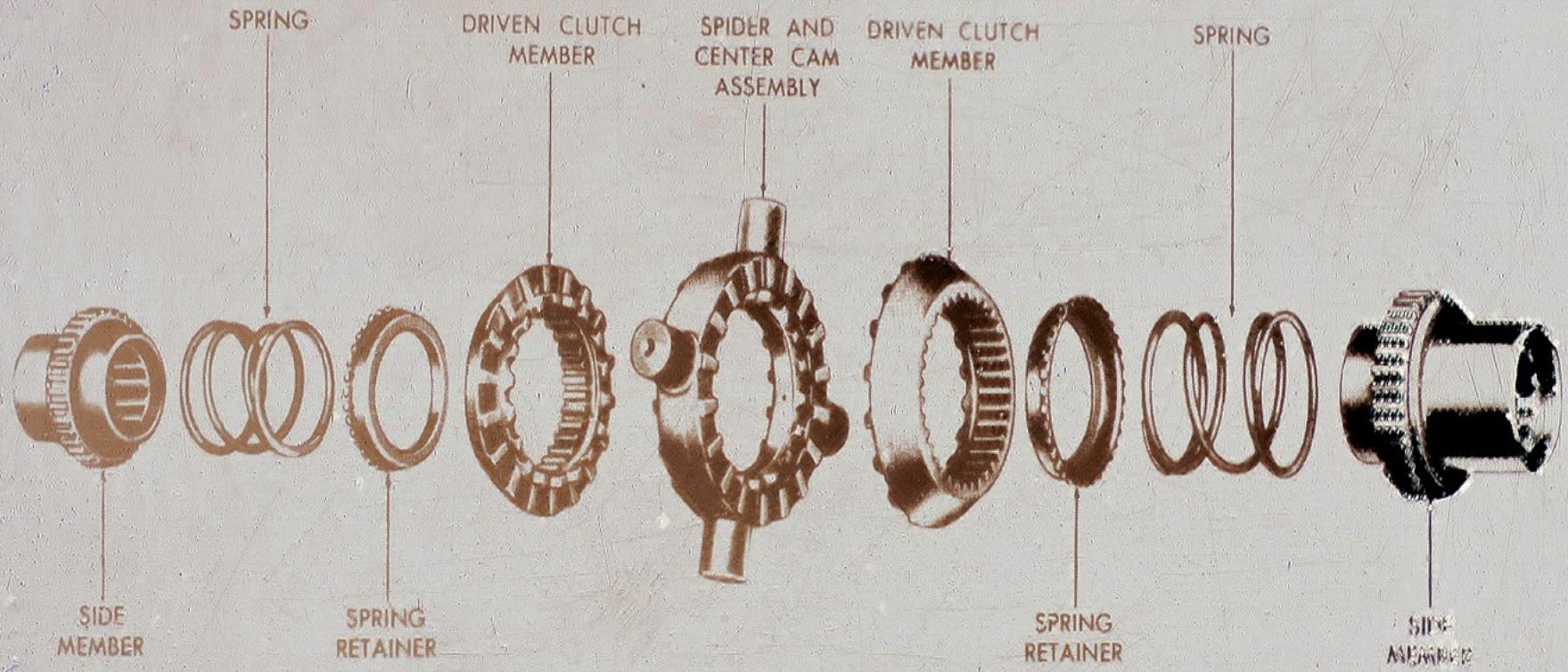


Axles

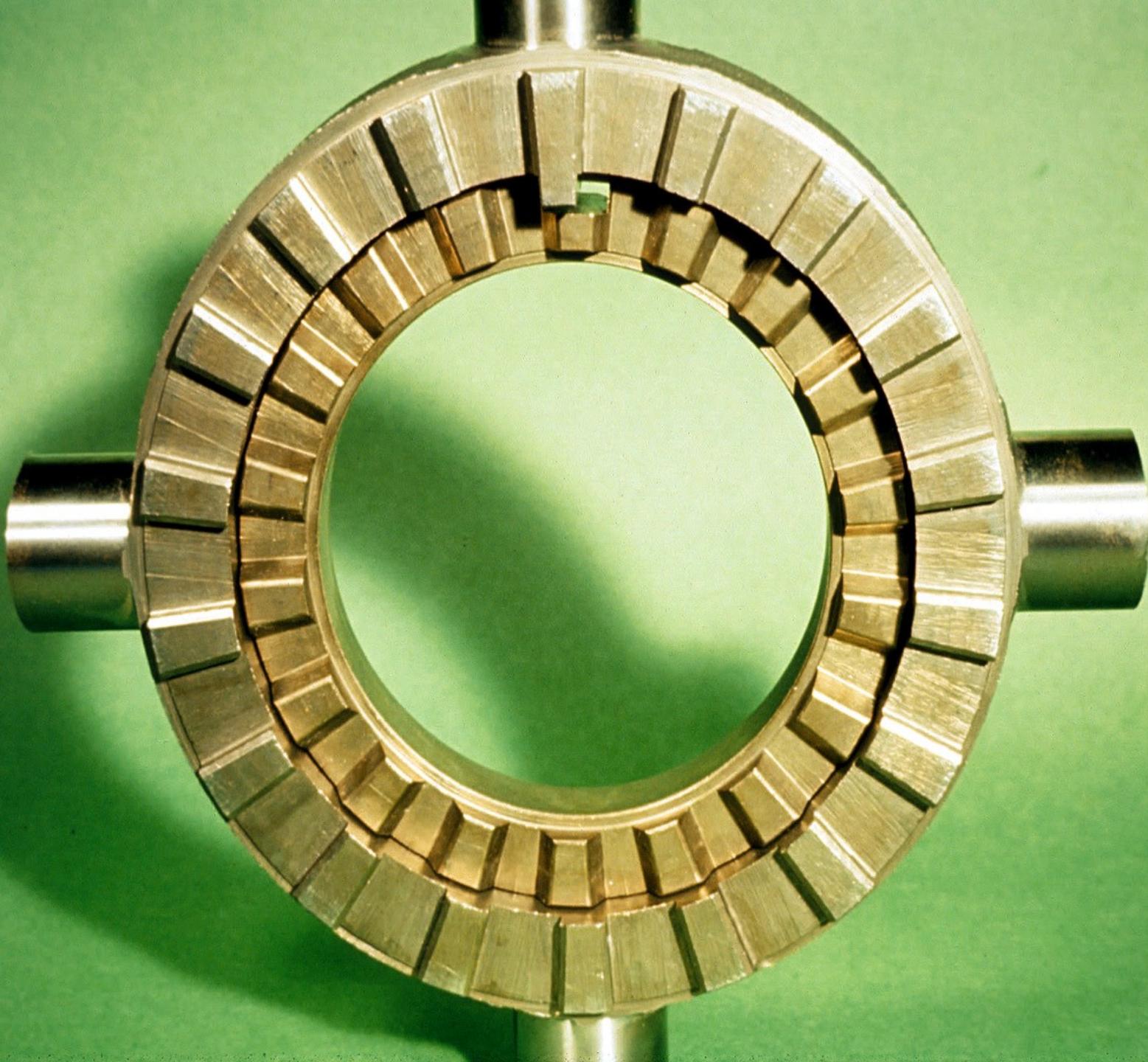


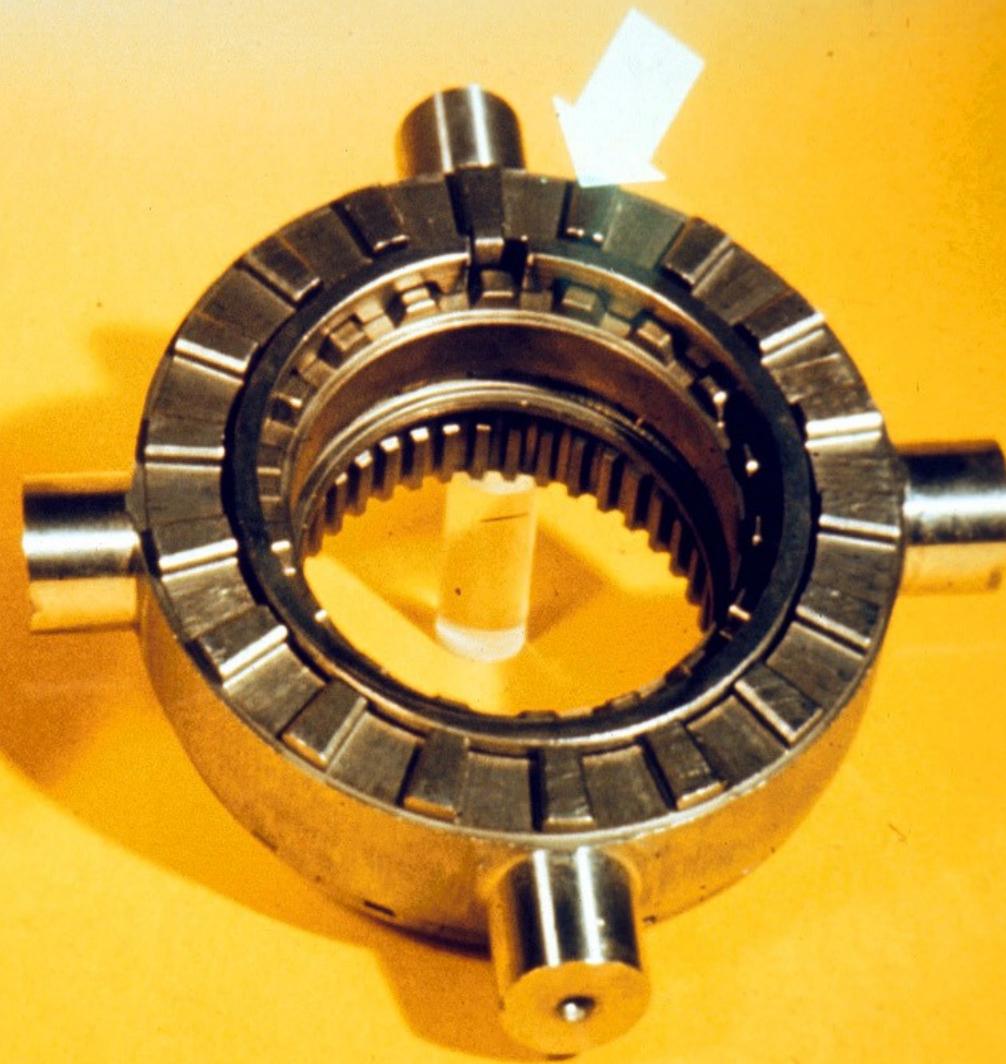
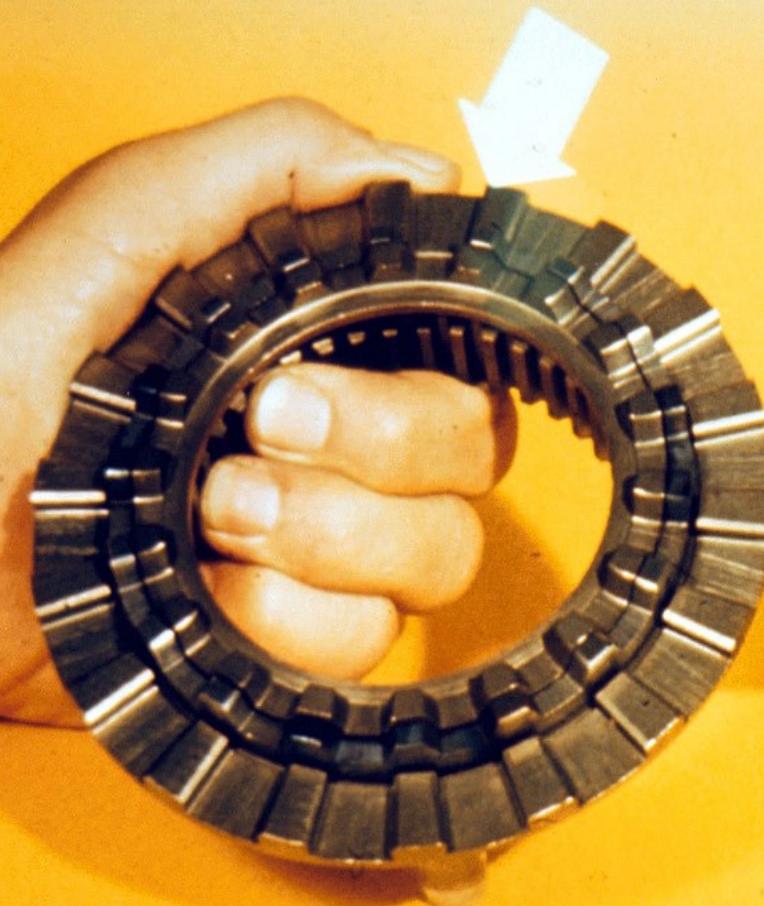


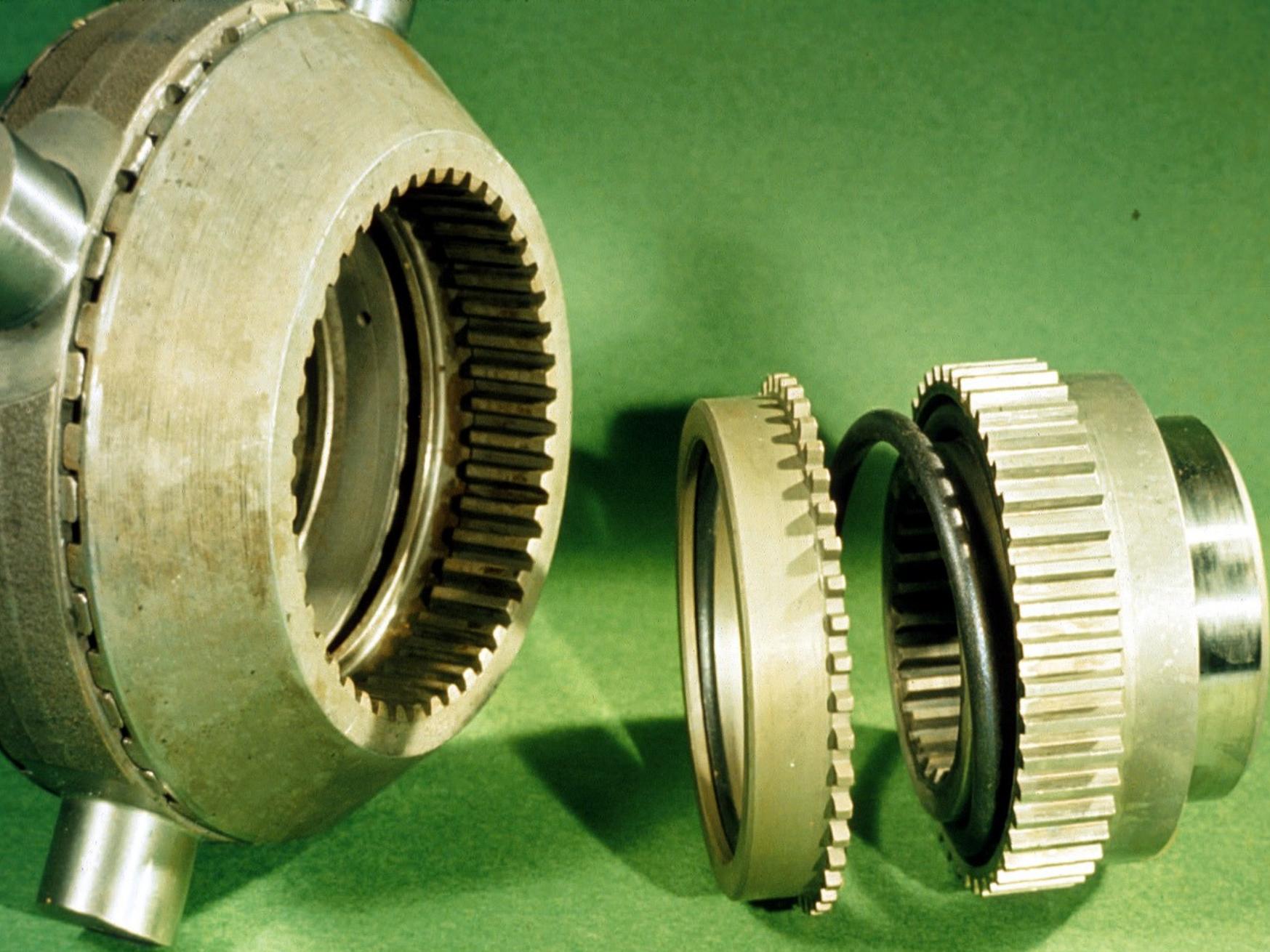




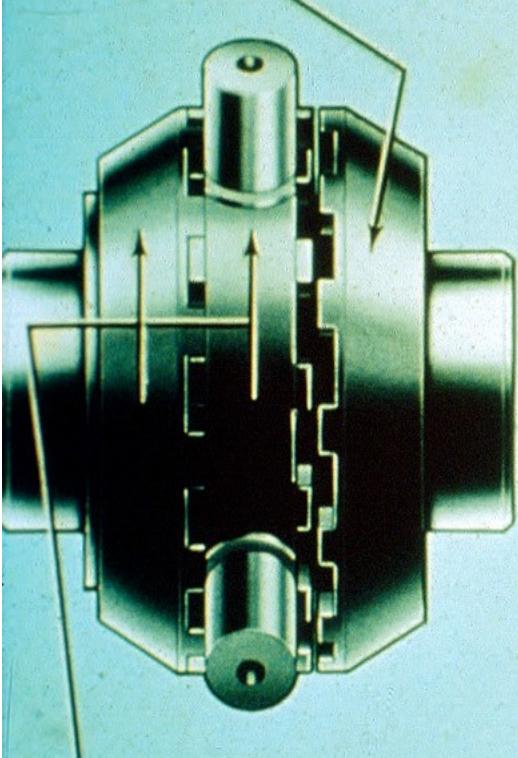
No-spin differential—disassembled view.



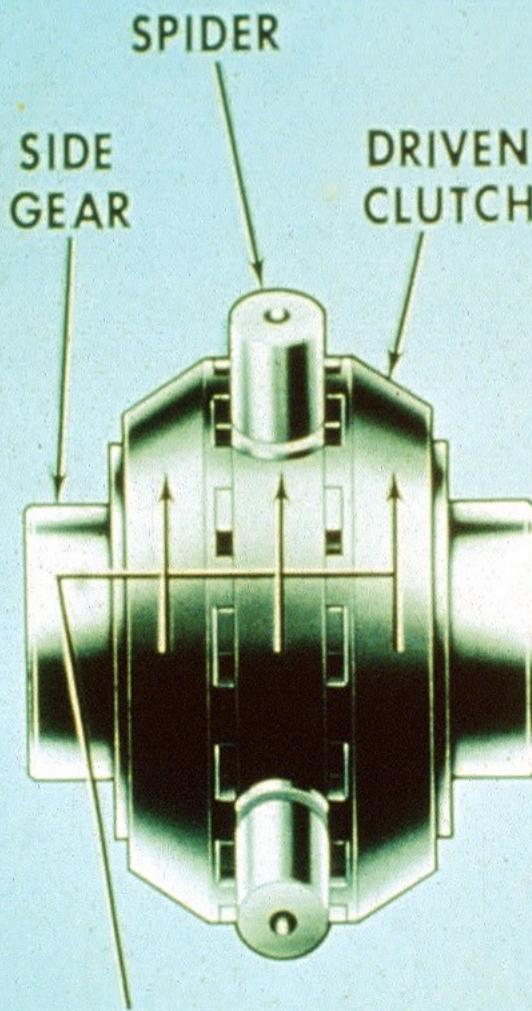




DRIVEN CLUTCH
ELEVATED BY CAMS
DISENGAGES AND
TRAVELS AT FASTER
SPEED

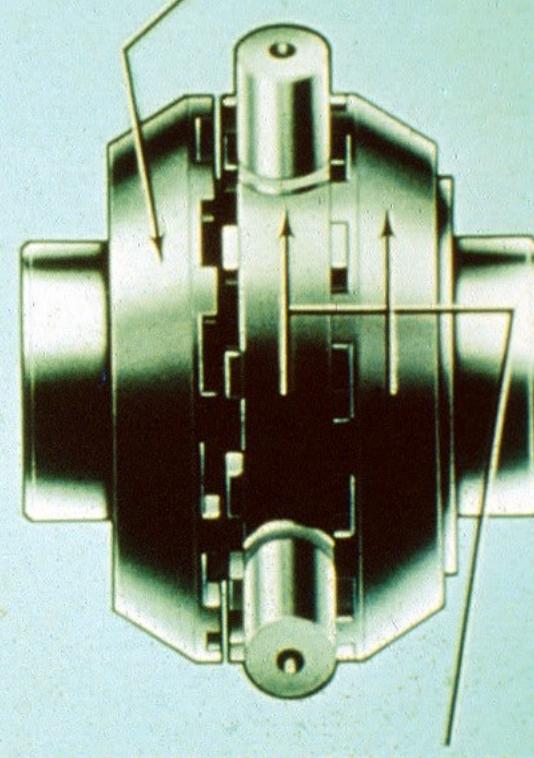


A

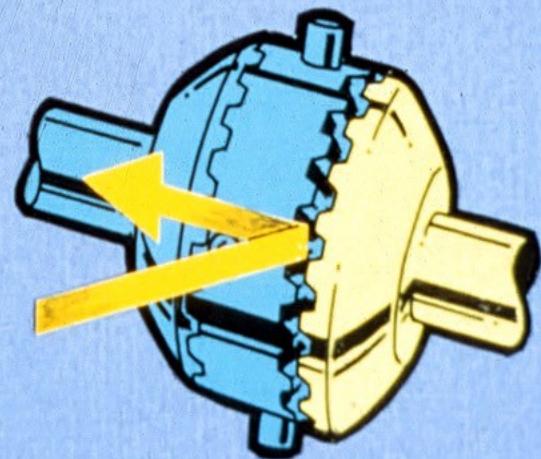
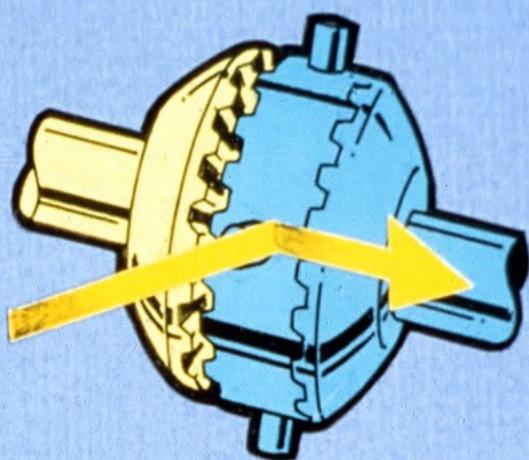
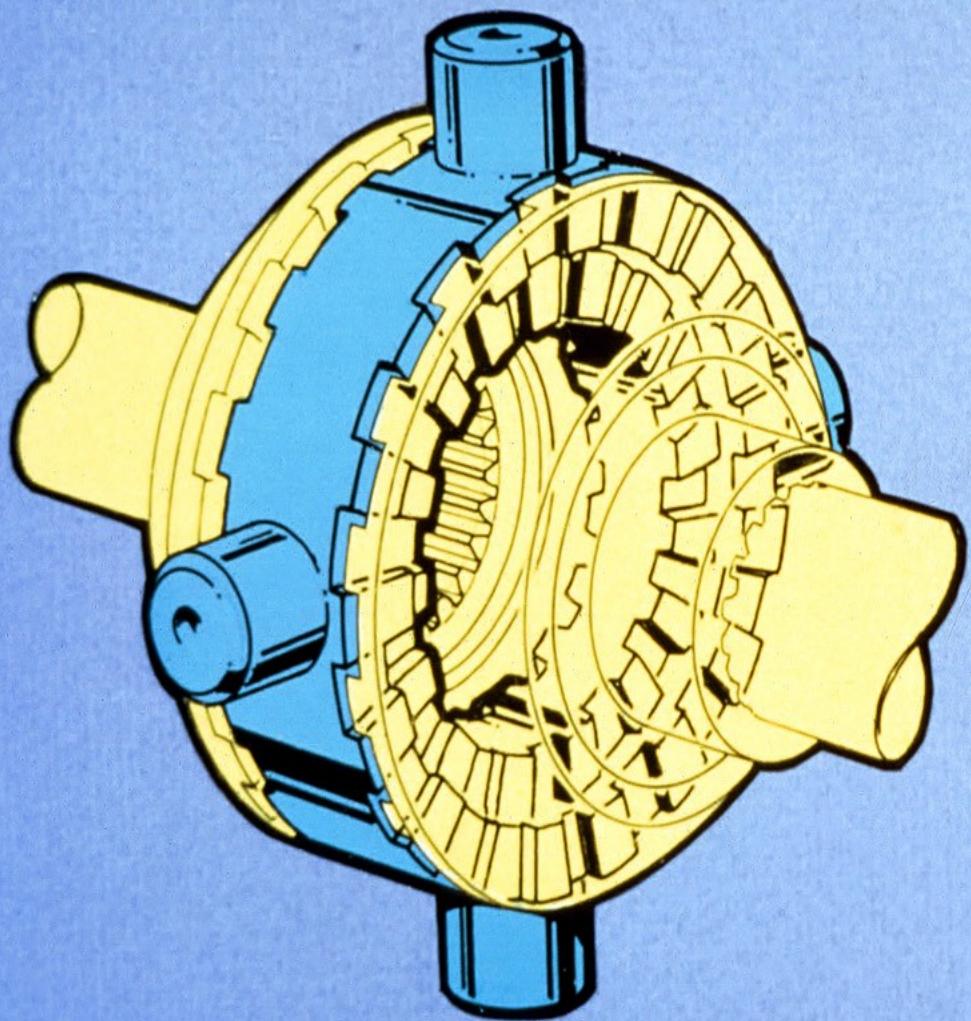


B

DRIVEN CLUTCH
ELEVATED BY CAMS
DISENGAGES AND
TRAVELS AT FASTER
SPEED

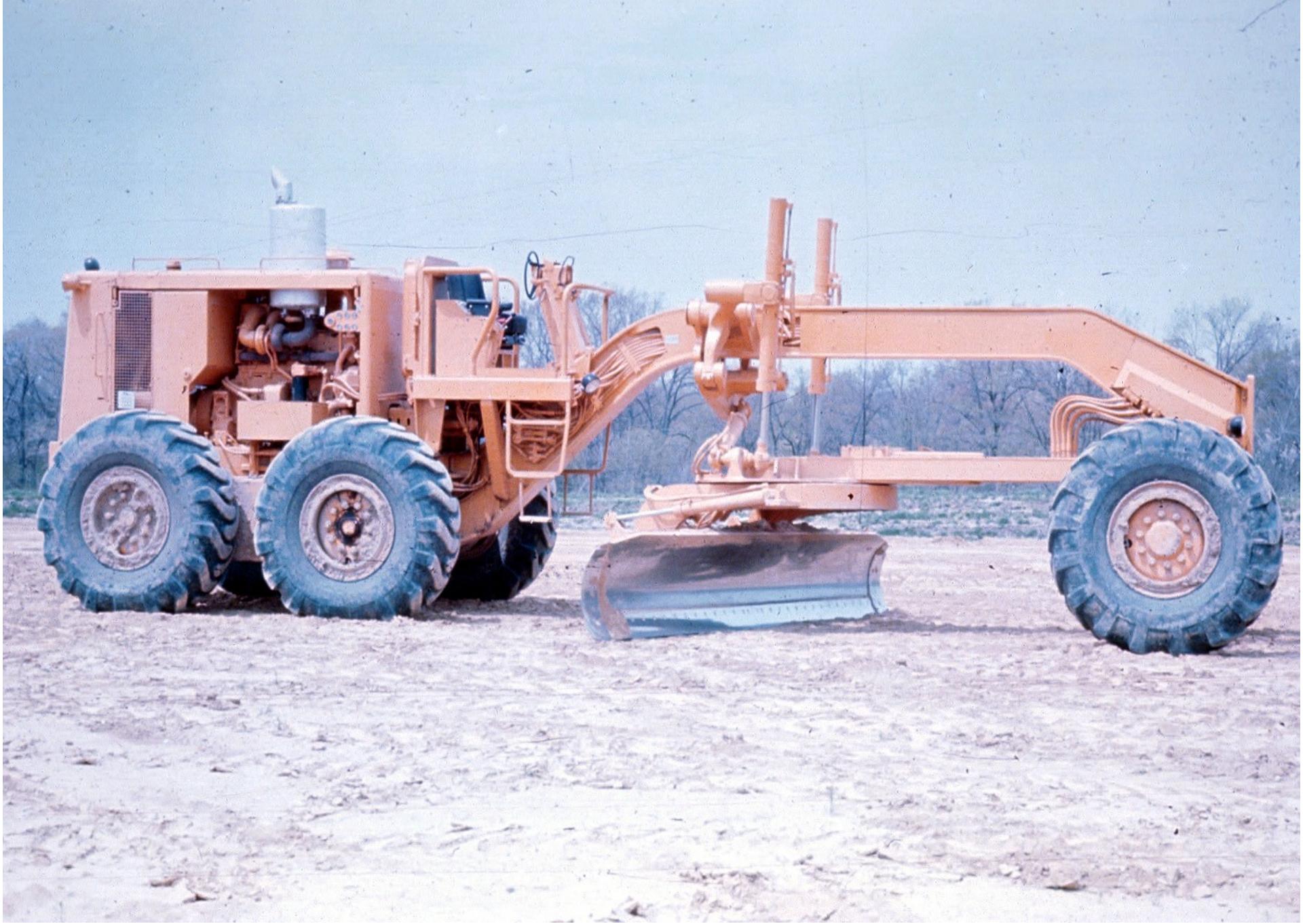


C





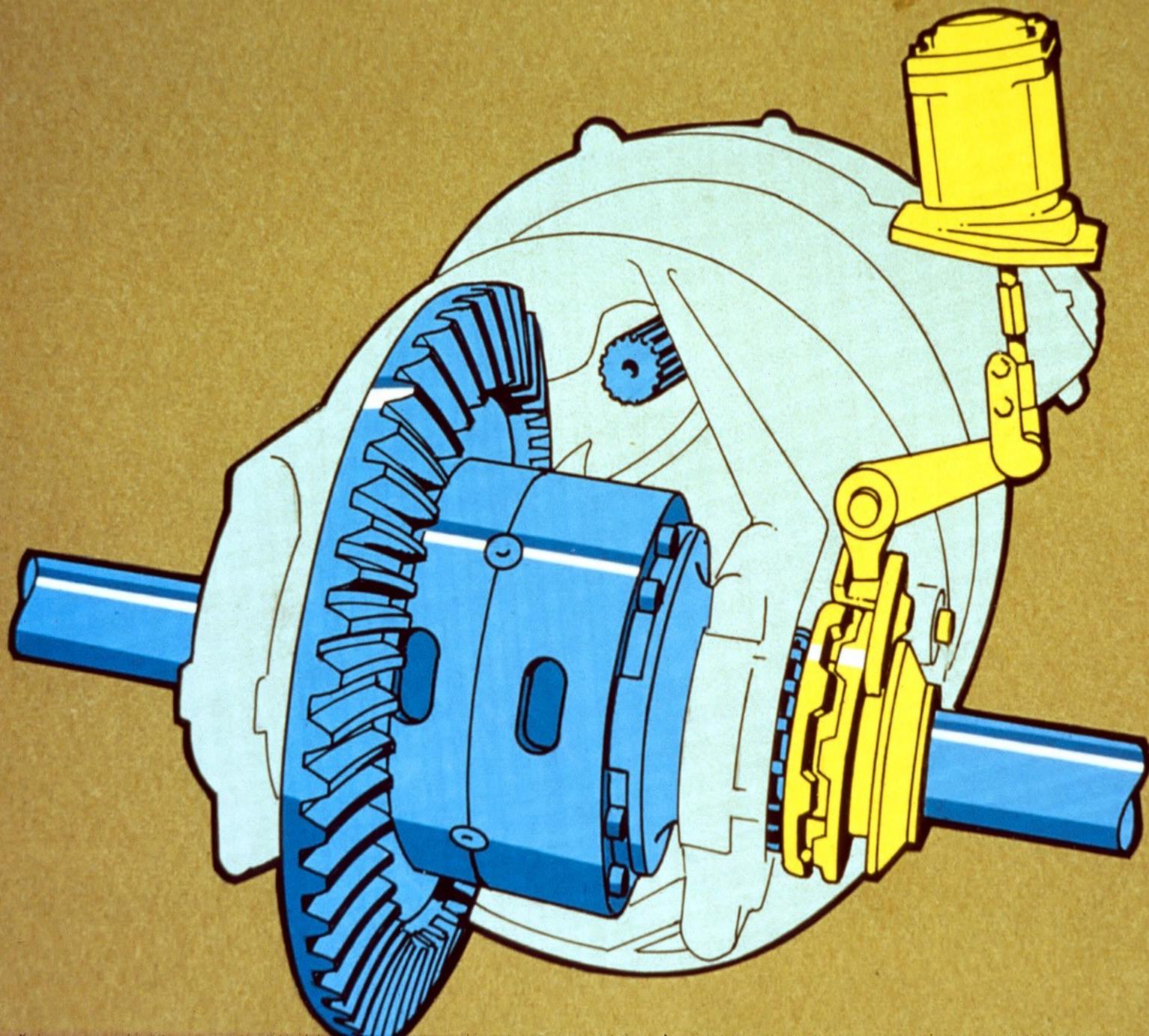
CAT
633

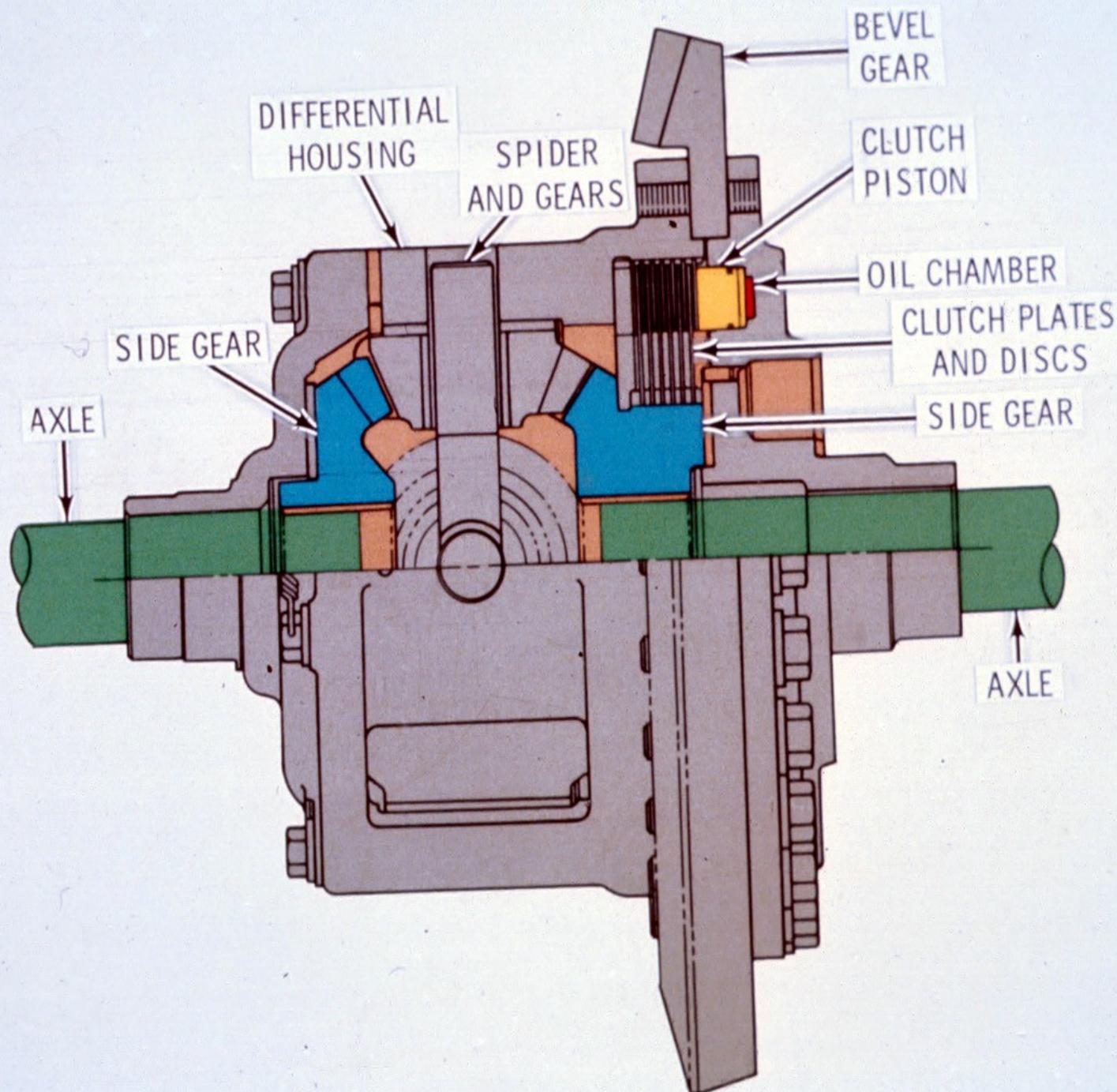




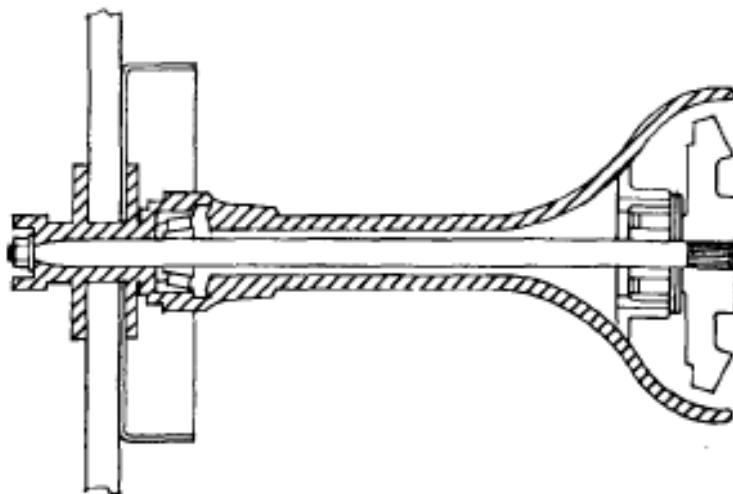
A close-up photograph of a mechanical assembly. On the left, a yellow-painted metal plate shows signs of age and wear. A rectangular slot is visible, containing a yellow metal component with horizontal ridges. The word "LOCK" is stamped vertically on this component. Above the slot, two yellow hex nuts are secured with washers. To the right of the slot, a large, textured blue leather strap is attached, featuring a prominent white stitched border. The strap is partially visible, showing its thickness and grain. The background is dark and out of focus.

DIFF
LOCK

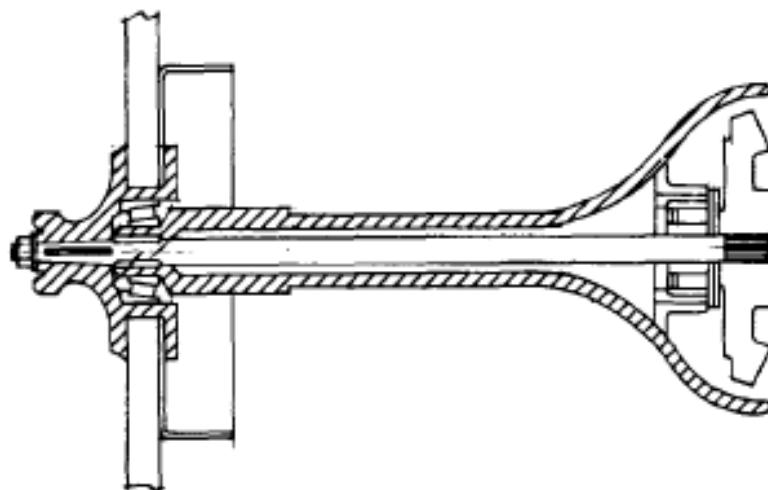




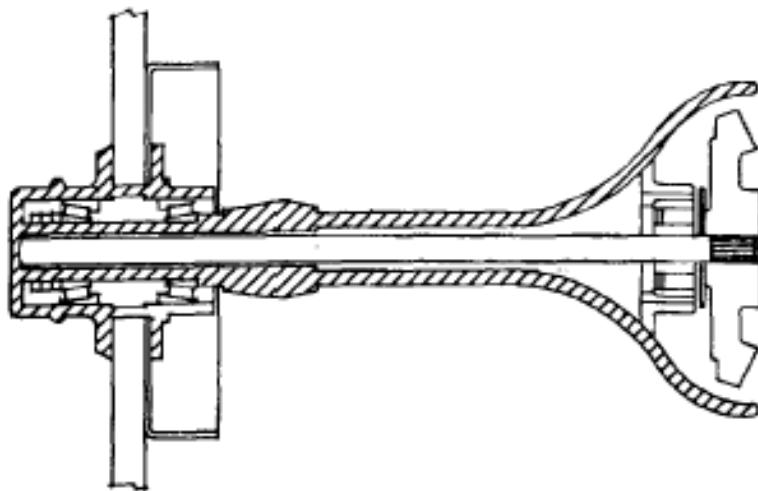
DRIVE AXLE



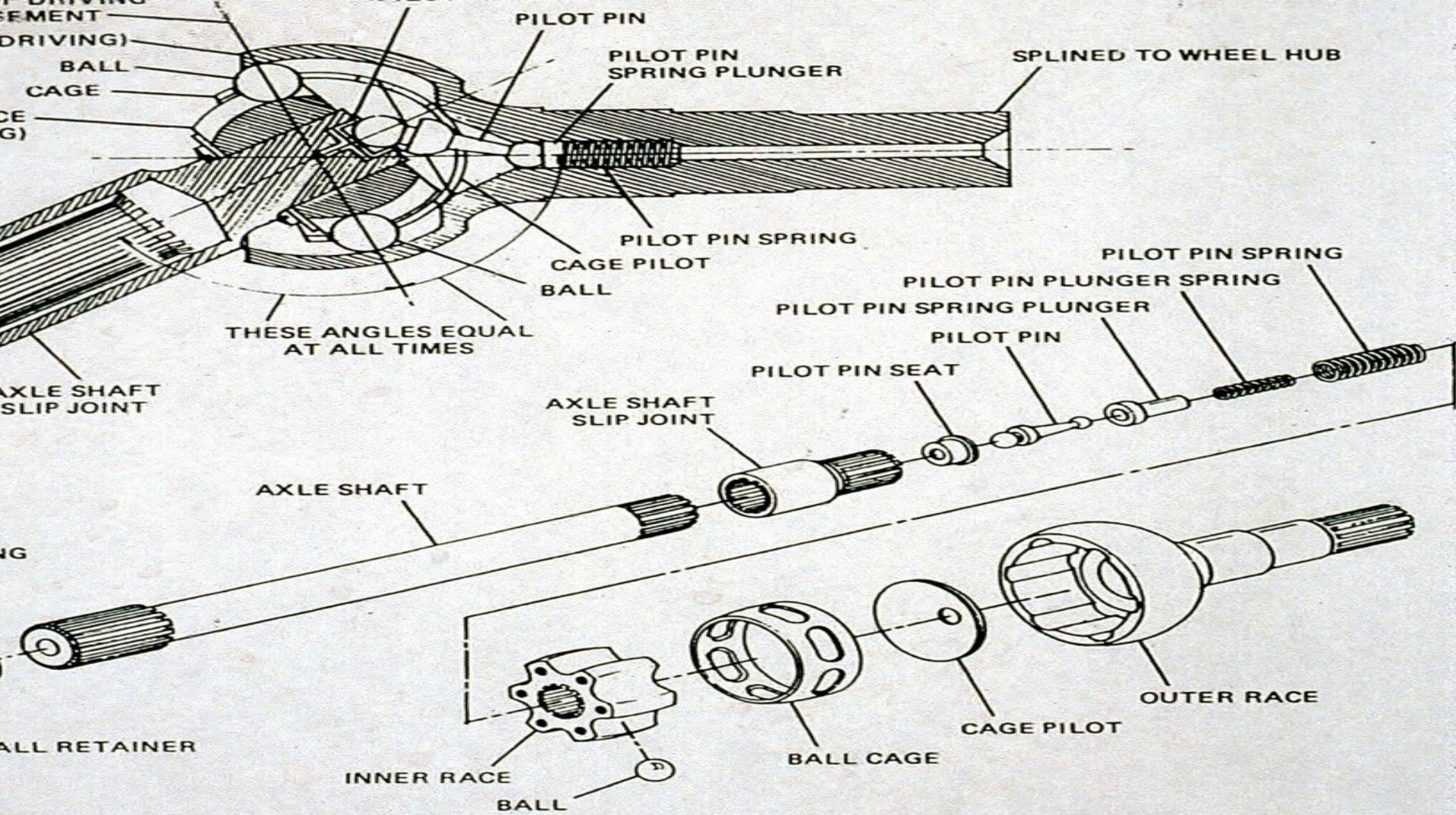
B. SEMIFLOATING REAR AXLE



C. THREE-QUARTER FLOATING REAR AXLE



D. FULL-FLOATING REAR AXLE



Rzeppa Constant Velocity Joint.